

09/759,130

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SEQUENCE LISTING

<10> Millennium Pharmaceuticals, Inc.  
McCarthy, Sean A  
Fraser, Christopher C  
Sharp, John D  
Barnes, Thomas S  
Kirst, Susan J  
Mackay, Charles R  
Myers, Paul S  
Leiby, Kevin R  
Wrighton, Nicolas  
Goodearl, Andrew  
Holtzman, Douglas A

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Ser	Ser	Asn	His	Val	Pro	Glu	Asn	Phe	Ser	Leu	Glu	Leu	Thr	His	Ala		
	690					695					700						
Thr	Pro	Ala	Val	Glu	Gln	Val	Ser	Gln	Leu	Leu	Ser	Met	Leu	His	Gln		
705					710					715					720		
Gly	Gln	Tyr	Gln	Pro	Arg	Pro	Ser	Phe	Arg	Gly	Asn	Lys	Tyr	Ser	Arg		
				725					730						735		
Ser	Tyr	Arg	Tyr	Ala	Leu	Gln	Asp	Met	Asp	Lys	Phe	Ser	Leu	Lys	Asp		
			740					745					750				
Ser	Gly	Arg	Gly	Asp	Ser	Glu	Ala	Gly	Asp	Ser	Asp	Tyr	Asp	Leu	Gly		
		755				760						765					
Arg	Asp	Ser	Pro	Ile	Asp	Arg	Leu	Leu	Gly	Glu	Gly	Phe	Ser	Asp	Leu		
	770				775						780						
Glu	Glu	Cys	Arg	Val	Leu	Gly	His	Ser	Asp	Gln	Cys	Trp	Met	Pro	Pro		
785					790					795					800		
Leu	Pro	Ser	Pro	Ser	Ser	Asp	Tyr	Arg	Ser	Asn	Met	Phe	Ile	Pro	Gly		
				805					810					815			
Glu	Glu	Phe	Pro	Thr	Gln	Pro	Gln	Gln	Gln	His	Pro	His	Gln	Ser	Leu		
			820					825					830				
Glu	Asp	Asp	Ala	Gln	Pro	Ala	Asp	Ser	Gly	Glu	Lys	Lys	Lys	Ser	Phe		
	835						840						845				
Ser	Thr	Phe	Gly	Lys	Asp	Ser	Pro	Asn	Asp	Glu	Asp	Thr	Gly	Asp	Thr		
	850					855					860						
Val	Asp	Arg	Ser	Asn	Ser	Leu	Glu	Arg	Arg	Lys	Gly	Pro	Leu	Pro	Ala		
865					870					875					880		
Glu	Glu	Ile	Pro	Glu	Asn	Tyr	Glu	Glu	Asp	Asp	Phe	Asp	Asn	Val	Leu		
			885						890					895			
Leu	Val	Ala	Glu	Ile	Asn	Lys	Leu	Leu	Gln	Asp	Val	Arg	Gln	Ser			
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 Met His Gln Met Asn Ala Lys Met His Phe Arg Phe Val Phe Ala Leu  
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 Leu Ile Val Ser Phe Asn His Asp Val Leu Gly  
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 Ile Ala Arg Leu Ser Glu Asp Val Ala Asp Val Leu Leu Lys Leu Pro  
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 Asn Pro Ser Thr Val Arg Phe Arg Ala Met Gln Arg Gly Asn Ser Pro  
 35 40 45  
 Leu Leu Val Val Asn Glu Asp Asn Gly Glu Ile Ser Ile Gly Ala Thr  
 50 55 60  
 Ile Asp Arg Glu Gln Leu Cys Gln Lys Asn Leu Asn Cys Ser Ile Glu  
 65 70 75 80  
 Phe Asp Val Ile Thr Leu Pro Thr Glu His Leu Gln Leu Phe His Ile  
 85 90 95  
 Glu Val Glu Val Leu Asp Ile Asn Asp Asn Ser Pro Gln Phe Ser Arg  
 100 105 110  
 Ser Leu Ile Pro Ile Glu Ile Ser Glu Ser Ala Ala Val Gly Thr Arg  
 115 120 125  
 Ile Pro Leu Asp Ser Ala Phe Asp Pro Asp Val Gly Glu Asn Ser Leu  
 130 135 140  
 His Thr Tyr Ser Leu Ser Ala Asn Asp Phe Phe Asn Ile Glu Val Arg  
 145 150 155 160  
 Thr Arg Thr Asp Gly Ala Lys Tyr Ala Glu Leu Ile Val Val Arg Glu  
 165 170 175  
 Leu Asp Arg Glu Leu Lys Ser Ser Tyr Glu Leu Gln Leu Thr Ala Ser  
 180 185 190  
 Asp Met Gly Val Pro Gln Arg Ser Gly Ser Ser Ile Leu Lys Ile Ser  
 195 200 205  
 Ile Ser Asp Ser Asn Asp Asn Ser Pro Ala Phe Glu Gln Gln Ser Tyr  
 210 215 220  
 Ile Ile Gln Leu Leu Glu Asn Ser Pro Val Gly Thr Leu Leu Leu Asp  
 225 230 235 240  
 Leu Asn Ala Thr Asp Pro Asp Glu Gly Ala Asn Gly Lys Ile Val Tyr  
 245 250 255  
 Ser Phe Ser Ser His Val Ser Pro Lys Ile Met Glu Thr Phe Lys Ile  
 260 265 270  
 Asp Ser Glu Arg Gly His Leu Thr Leu Phe Lys Gln Val Asp Tyr Glu  
 275 280 285  
 Ile Thr Lys Ser Tyr Glu Ile Asp Val Gln Ala Gln Asp Leu Gly Pro  
 290 295 300  
 Asn Ser Ile Pro Ala His Cys Lys Ile Ile Ile Lys Val Val Asp Val  
 305 310 315 320

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Glu	Glu	Ile	Ser	Tyr	Ile	Phe	Glu	Gly	Asp	Pro	Ile	Asp	Thr	Phe	Val
			340					345					350		
Ala	Leu	Val	Arg	Val	Gln	Asp	Lys	Asp	Ser	Gly	Leu	Asn	Gly	Glu	Ile
		355					360					365			
Val	Cys	Lys	Leu	His	Gly	His	Gly	His	Phe	Lys	Leu	Gln	Lys	Thr	Tyr
	370				375						380				
Glu	Asn	Asn	Tyr	Leu	Ile	Leu	Thr	Asn	Ala	Thr	Leu	Asp	Arg	Glu	Lys
385					390					395					400
Arg	Ser	Glu	Tyr	Ser	Leu	Thr	Val	Ile	Ala	Glu	Asp	Arg	Gly	Thr	Pro
			405						410					415	
Ser	Leu	Ser	Thr	Val	Lys	His	Phe	Thr	Val	Gln	Ile	Asn	Asp	Ile	Asn
			420					425					430		
Asp	Asn	Pro	Pro	His	Phe	Gln	Arg	Ser	Arg	Tyr	Glu	Phe	Val	Ile	Ser
		435					440					445			
Glu	Asn	Asn	Ser	Pro	Gly	Ala	Tyr	Ile	Thr	Thr	Val	Thr	Ala	Thr	Asp
	450					455					460				
Pro	Asp	Leu	Gly	Glu	Asn	Gly	Gln	Val	Thr	Tyr	Thr	Ile	Leu	Glu	Ser
465					470					475					480
Phe	Ile	Leu	Gly	Ser	Ile	Thr	Thr	Tyr	Val	Thr	Ile	Asp	Pro	Ser	
			485					490						495	
Asn	Gly	Ala	Ile	Tyr	Ala	Leu	Arg	Ile	Phe	Asp	His	Glu	Glu	Val	Ser
			500					505					510		
Gln	Ile	Thr	Phe	Val	Val	Glu	Ala	Arg	Asp	Gly	Gly	Ser	Pro	Lys	Gln
		515					520					525			
Leu	Val	Ser	Asn	Thr	Thr	Val	Val	Leu	Thr	Ile	Ile	Asp	Glu	Asn	Asp
	530					535					540				
Asn	Val	Pro	Val	Val	Ile	Gly	Pro	Ala	Leu	Arg	Asn	Asn	Thr	Ala	Glu
545					550					555					560
Ile	Thr	Ile	Pro	Lys	Gly	Ala	Glu	Ser	Gly	Phe	His	Val	Thr	Arg	Ile
			565						570					575	
Arg	Ala	Ile	Asp	Arg	Asp	Ser	Gly	Val	Asn	Ala	Glu	Leu	Ser	Cys	Ala
			580				585						590		
Ile	Val	Ala	Gly	Asn	Glu	Glu	Asn	Ile	Phe	Ile	Ile	Asp	Pro	Arg	Ser
		595					600					605			
Cys	Asp	Ile	His	Thr	Asn	Val	Ser	Met	Asp	Ser	Val	Pro	Tyr	Thr	Glu
	610				615						620				
Trp	Glu	Leu	Ser	Val	Ile	Gln	Asp	Lys	Gly	Asn	Pro	Gln	Leu	His	
625					630				635					640	
Thr	Lys	Val	Leu	Leu	Lys	Cys	Met	Ile	Phe	Glu	Tyr	Ala	Glu	Ser	Val
			645						650					655	
Thr	Ser	Thr	Ala	Met	Thr	Ser	Val	Ser	Gln	Ala	Ser	Leu	Asp	Val	Ser
			660					665					670		
Met	Ile	Ile	Ile	Ile	Ser	Leu	Gly	Ala	Ile	Cys	Ala	Val	Leu	Leu	Val
	675						680					685			
Ile	Met	Val	Leu	Phe	Ala	Thr	Arg	Cys	Asn	Arg	Glu	Lys	Lys	Asp	Thr
	690					695					700				
Arg	Ser	Tyr	Asn	Cys	Arg	Val	Ala	Glu	Ser	Thr	Tyr	Gln	His	His	Pro
705					710					715					720
Lys	Arg	Pro	Ser	Arg	Gln	Ile	His	Lys	Gly	Asp	Ile	Thr	Leu	Val	Pro
			725						730					735	
Thr	Ile	Asn	Gly	Thr	Leu	Pro	Ile	Arg	Ser	His	His	Arg	Ser	Ser	Pro
		740						745					750		
Ser	Ser	Ser	Pro	Thr	Leu	Glu	Arg	Gly	Gln	Met	Gly	Ser	Arg	Gln	Ser
		755					760					765			
His	Asn	Ser	His	Gln	Ser	Leu	Asn	Ser	Leu	Val	Thr	Ile	Ser	Ser	Asn

770		775		780
His Val Pro Glu Asn Phe Ser Leu Glu Leu Thr His Ala Thr Pro Ala				
785		790		800
Val Glu Gln Val Ser Gln Leu Leu Ser Met Leu His Gln Gly Gln Tyr				
	805		810	815
Gln Pro Arg Pro Ser Phe Arg Gly Asn Lys Tyr Ser Arg Ser Tyr Arg				
	820		825	830
Tyr Ala Leu Gln Asp Met Asp Lys Phe Ser Leu Lys Asp Ser Gly Arg				
	835		840	845
Gly Asp Ser Glu Ala Gly Asp Ser Asp Tyr Asp Leu Gly Arg Asp Ser				
	850		855	860
Pro Ile Asp Arg Leu Leu Gly Glu Gly Phe Ser Asp Leu Phe Leu Thr				
865		870		880
Asp Gly Arg Ile Pro Ala Ala Met Arg Leu Cys Thr Glu Glu Cys Arg				
	885		890	895
Val Leu Gly His Ser Asp Gln Cys Trp Met Pro Pro Leu Pro Ser Pro				
	900		905	910
Ser Ser Asp Tyr Arg Ser Asn Met Phe Ile Pro Gly Glu Glu Phe Pro				
	915		920	925
Thr Gln Pro Gln Gln Gln His Pro His Gln Ser Leu Glu Asp Asp Ala				
	930		935	940
Gln Pro Ala Asp Ser Gly Glu Lys Lys Lys Ser Phe Ser Thr Phe Gly				
945		950		955
Lys Asp Ser Pro Asn Asp Glu Asp Thr Gly Asp Thr Ser Thr Ser Ser				
	965		970	975
Leu Leu Ser Glu Met Ser Ser Val Phe Gln Arg Leu Leu Pro Pro Ser				
	980		985	990
Leu Asp Thr Tyr Ser Glu Cys Ser Glu Val Asp Arg Ser Asn Ser Leu				
	995		1000	1005
Glu Arg Arg Lys Gly Pro Leu Pro Ala Lys Thr Val Gly Tyr Pro Gln				
	1010		1015	1020
Gly Val Ala Ala Trp Ala Ala Ser Thr His Phe Gln Asn Pro Thr Thr				
1025		1030		1035
Asn Cys Gly Pro Pro Leu Gly Thr His Ser Ser Val Gln Pro Ser Ser				
	1045		1050	1055
Lys Trp Leu Pro Ala Met Glu Glu Ile Pro Glu Asn Tyr Glu Glu Asp				
	1060		1065	1070
Asp Phe Asp Asn Val Leu Asn His Leu Asn Asp Gly Lys His Glu Leu				
	1075		1080	1085
Met Asp Ala Ser Glu Leu Val Ala Glu Ile Asn Lys Leu Leu Gln Asp				
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Val Arg Gln Ser				
1105				

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 <213> Homo sapiens

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35 40 45

Leu	Leu	Val	Val	Asn	Glu	Asp	Asn	Gly	Glu	Ile	Ser	Ile	Gly	Ala	Thr
50						55					60				
Ile	Asp	Arg	Glu	Gln	Leu	Cys	Gln	Lys	Asn	Leu	Asn	Cys	Ser	Ile	Glu
65					70					75					80
Phe	Asp	Val	Ile	Thr	Leu	Pro	Thr	Glu	His	Leu	Gln	Leu	Phe	His	Ile
				85					90					95	
Glu	Val	Glu	Val	Leu	Asp	Ile	Asn	Asp	Asn	Ser	Pro	Gln	Phe	Ser	Arg
			100					105					110		
Ser	Leu	Ile	Pro	Ile	Glu	Ile	Ser	Glu	Ser	Ala	Ala	Val	Gly	Thr	Arg
			115					120				125			
Ile	Pro	Leu	Asp	Ser	Ala	Phe	Asp	Pro	Asp	Val	Gly	Glu	Asn	Ser	Leu
	130					135					140				
His	Thr	Tyr	Ser	Leu	Ser	Ala	Asn	Asp	Phe	Phe	Asn	Ile	Glu	Val	Arg
145					150					155					160
Thr	Arg	Thr	Asp	Gly	Ala	Lys	Tyr	Ala	Glu	Leu	Ile	Val	Val	Arg	Glu
				165					170					175	
Leu	Asp	Arg	Glu	Leu	Lys	Ser	Ser	Tyr	Glu	Leu	Gln	Leu	Thr	Ala	Ser
			180					185					190		
Asp	Met	Gly	Val	Pro	Gln	Arg	Ser	Gly	Ser	Ser	Ile	Leu	Lys	Ile	Ser
	195						200					205			
Ile	Ser	Asp	Ser	Asn	Asp	Asn	Ser	Pro	Ala	Phe	Glu	Gln	Gln	Ser	Tyr
	210					215					220				
Ile	Ile	Gln	Leu	Leu	Glu	Asn	Ser	Pro	Val	Gly	Thr	Leu	Leu	Leu	Asp
225					230					235					240
Leu	Asn	Ala	Thr	Asp	Pro	Asp	Glu	Gly	Ala	Asn	Gly	Lys	Ile	Val	Tyr
				245					250					255	
Ser	Phe	Ser	Ser	His	Val	Ser	Pro	Lys	Ile	Met	Glu	Thr	Phe	Lys	Ile
			260					265					270		
Asp	Ser	Glu	Arg	Gly	His	Leu	Thr	Leu	Phe	Lys	Gln	Val	Asp	Tyr	Glu
		275					280					285			
Ile	Thr	Lys	Ser	Tyr	Glu	Ile	Asp	Val	Gln	Ala	Gln	Asp	Leu	Gly	Pro
	290					295					300				
Asn	Ser	Ile	Pro	Ala	His	Cys	Lys	Ile	Ile	Ile	Lys	Val	Val	Asp	Val
305					310					315					320
Asn	Asp	Asn	Lys	Pro	Glu	Ile	Asn	Ile	Asn	Leu	Met	Ser	Pro	Gly	Lys
			325						330					335	
Glu	Glu	Ile	Ser	Tyr	Ile	Phe	Glu	Gly	Asp	Pro	Ile	Asp	Thr	Phe	Val
			340					345					350		
Ala	Leu	Val	Arg	Val	Gln	Asp	Lys	Asp	Ser	Gly	Leu	Asn	Gly	Glu	Ile
		355					360					365			
Val	Cys	Lys	Leu	His	Gly	His	Gly	His	Phe	Lys	Leu	Gln	Lys	Thr	Tyr
	370					375					380				
Glu	Asn	Asn	Tyr	Leu	Ile	Leu	Thr	Asn	Ala	Thr	Leu	Asp	Arg	Glu	Lys
385					390					395					400
Arg	Ser	Glu	Tyr	Ser	Leu	Thr	Val	Ile	Ala	Glu	Asp	Arg	Gly	Thr	Pro
			405						410					415	
Ser	Leu	Ser	Thr	Val	Lys	His	Phe	Thr	Val	Gln	Ile	Asn	Asp	Ile	Asn
			420					425					430		
Asp	Asn	Pro	Pro	His	Phe	Gln	Arg	Ser	Arg	Tyr	Glu	Phe	Val	Ile	Ser
		435					440					445			
Glu	Asn	Asn	Ser	Pro	Gly	Ala	Tyr	Ile	Thr	Thr	Val	Thr	Ala	Thr	Asp
	450					455					460				
Pro	Asp	Leu	Gly	Glu	Asn	Gly	Gln	Val	Thr	Tyr	Thr	Ile	Leu	Glu	Ser
465					470					475					480
Phe	Ile	Leu	Gly	Ser	Ser	Ile	Thr	Thr	Tyr	Val	Thr	Ile	Asp	Pro	Ser
				485					490					495	
Asn	Gly	Ala	Ile	Tyr	Ala	Leu	Arg	Ile	Phe	Asp	His	Glu	Glu	Val	Ser

				500					505					510			
Gln	Ile	Thr	Phe	Val	Val	Glu	Ala	Arg	Asp	Gly	Gly	Ser	Pro	Lys	Gln		
		515					520					525					
Leu	Val	Ser	Asn	Thr	Thr	Val	Val	Leu	Thr	Ile	Ile	Asp	Glu	Asn	Asp		
		530					535					540					
Asn	Val	Pro	Val	Val	Ile	Gly	Pro	Ala	Leu	Arg	Asn	Asn	Thr	Ala	Glu		
545					550					555					560		
Ile	Thr	Ile	Pro	Lys	Gly	Ala	Glu	Ser	Gly	Phe	His	Val	Thr	Arg	Ile		
				565					570					575			
Arg	Ala	Ile	Asp	Arg	Asp	Ser	Gly	Val	Asn	Ala	Glu	Leu	Ser	Cys	Ala		
			580					585					590				
Ile	Val	Ala	Gly	Asn	Glu	Glu	Asn	Ile	Phe	Ile	Ile	Asp	Pro	Arg	Ser		
		595					600					605					
Cys	Asp	Ile	His	Thr	Asn	Val	Ser	Met	Asp	Ser	Val	Pro	Tyr	Thr	Glu		
	610					615					620						
Trp	Glu	Leu	Ser	Val	Ile	Ile	Gln	Asp	Lys	Gly	Asn	Pro	Gln	Leu	His		
625					630					635				640			
Thr	Lys	Val	Leu	Leu	Lys	Cys	Met	Ile	Phe	Glu	Tyr	Ala	Glu	Ser	Val		
			645					650					655				
Thr	Ser	Thr	Ala	Met	Thr	Ser	Val	Ser	Gln	Ala	Ser	Leu	Asp	Val	Ser		
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 35 40 45  
 Pro Ile Arg Ser His His Arg Ser Ser Pro Ser Ser Ser Pro Thr Leu  
 50 55 60  
 Glu Arg Gly Gln Met Gly Ser Arg Gln Ser His Asn Ser His Gln Ser  
 65 70 75 80  
 Leu Asn Ser Leu Val Thr Ile Ser Ser Asn His Val Pro Glu Asn Phe  
 85 90 95  
 Ser Leu Glu Leu Thr His Ala Thr Pro Ala Val Glu Gln Val Ser Gln  
 100 105 110

Leu	Leu	Ser	Met	Leu	His	Gln	Gly	Gln	Tyr	Gln	Pro	Arg	Pro	Ser	Phe
		115					120					125			
Arg	Gly	Asn	Lys	Tyr	Ser	Arg	Ser	Tyr	Arg	Tyr	Ala	Leu	Gln	Asp	Met
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Asp	Lys	Phe	Ser	Leu	Lys	Asp	Ser	Gly	Arg	Gly	Asp	Ser	Glu	Ala	Gly
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Asp	Ser	Asp	Tyr	Asp	Leu	Gly	Arg	Asp	Ser	Pro	Ile	Asp	Arg	Leu	Leu
				165				170						175	
Gly	Glu	Gly	Phe	Ser	Asp	Leu	Phe	Leu	Thr	Asp	Gly	Arg	Ile	Pro	Ala
			180					185					190		
Ala	Met	Arg	Leu	Cys	Thr	Glu	Glu	Cys	Arg	Val	Leu	Gly	His	Ser	Asp
		195					200					205			
Gln	Cys	Trp	Met	Pro	Pro	Leu	Pro	Ser	Pro	Ser	Ser	Asp	Tyr	Arg	Ser
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Asn	Met	Phe	Ile	Pro	Gly	Glu	Glu	Phe	Pro	Thr	Gln	Pro	Gln	Gln	Gln
225					230					235					240
His	Pro	His	Gln	Ser	Leu	Glu	Asp	Asp	Ala	Gln	Pro	Ala	Asp	Ser	Gly
				245					250					255	
Glu	Lys	Lys	Lys	Ser	Phe	Ser	Thr	Phe	Gly	Lys	Asp	Ser	Pro	Asn	Asp
			260					265					270		
Glu	Asp	Thr	Gly	Asp	Thr	Ser	Thr	Ser	Ser	Leu	Leu	Ser	Glu	Met	Ser
		275					280					285			
Ser	Val	Phe	Gln	Arg	Leu	Leu	Pro	Pro	Ser	Leu	Asp	Thr	Tyr	Ser	Glu
	290					295					300				
Cys	Ser	Glu	Val	Asp	Arg	Ser	Asn	Ser	Leu	Glu	Arg	Arg	Lys	Gly	Pro
305					310					315					320
Leu	Pro	Ala	Lys	Thr	Val	Gly	Tyr	Pro	Gln	Gly	Val	Ala	Ala	Trp	Ala
				325					330					335	
Ala	Ser	Thr	His	Phe	Gln	Asn	Pro	Thr	Thr	Asn	Cys	Gly	Pro	Pro	Leu
			340					345					350		
Gly	Thr	His	Ser	Ser	Val	Gln	Pro	Ser	Ser	Lys	Trp	Leu	Pro	Ala	Met
		355					360					365			
Glu	Glu	Ile	Pro	Glu	Asn	Tyr	Glu	Glu	Asp	Asp	Phe	Asp	Asn	Val	Leu
	370					375					380				
Asn	His	Leu	Asn	Asp	Gly	Lys	His	Glu	Leu	Met	Asp	Ala	Ser	Glu	Leu
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tgacactctc ctgcctggaa agaggacgaa cgaccaaaca aacgcaagga ctggactcca 180  
tgccgaaggt atctggaagt cgtgacacgg tgtgtataaa acaaaagttt gcgagctggt 240  
aattgctgtg ctgtgttatt aagagacgct ttcaagtttc aagtaccaa tgtagcttta 300

cgttgccaaa	ggaagttgag	gcaattgctt	tgctgtttta	acttgctctg	tgagggaaat	360
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Arg Phe Arg Ala Met Gln Arg Gly Asn Ser Pro Leu Leu Val Val Asn
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Phe Gln Arg Ser Arg Tyr Glu	Phe Val Ile Ser Glu Asn Asn Ser Pro			
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Ser Ile Thr Thr Tyr Val Thr	Ile Asp Pro Ser Asn Gly Ala Ile Tyr			
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Ala Leu Arg Ile Phe Asp His	Glu Glu Val Ser Gln Ile Thr Phe Val			
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Val Glu Ala Arg Asp Gly Gly	Ser Pro Lys Gln Leu Val Ser Asn Thr			
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Arg	Ser	Glu	Tyr	Ser	Leu	Thr	Val	Ile	Ala	Glu	Asp	Arg	Gly	Thr	Pro
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Ser	Leu	Ser	Thr	Val	Lys	His	Phe	Thr	Val	Gln	Ile	Asn	Asp	Ile	Asn
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Asp	Asn	Pro	Pro	His	Phe	Gln	Arg	Ser	Arg	Tyr	Glu	Phe	Val	Ile	Ser
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Glu	Asn	Asn	Ser	Pro	Gly	Ala	Tyr	Ile	Thr	Thr	Val	Thr	Ala	Thr	Asp
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Ile	Thr	Ile	Pro	Lys	Gly	Ala	Glu	Ser	Gly	Phe	His	Val	Thr	Arg	Ile
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Arg	Ala	Ile	Asp	Arg	Asp	Ser	Gly	Val	Asn	Ala	Glu	Leu	Ser	Cys	Ala
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Ile	Val	Ala	Gly	Asn	Glu	Glu	Asn	Ile	Phe	Ile	Ile	Asp	Pro	Arg	Ser
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Cys	Asp	Ile	His	Thr	Asn	Val	Ser	Met	Asp	Ser	Val	Pro	Tyr	Thr	Glu
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<212> PRT

<213> Homo sapiens

<400> 38

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Asn	Phe	Ser	Leu	Glu	Leu	Thr	His	Ala	Thr	Pro	Ala	Val	Glu	Val	Ser
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Gln	Leu	Leu	Ser	Met	Leu	His	Gln	Gly	Gln	Tyr	Gln	Pro	Arg	Pro	Ser
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Pro	Ala	Ala	Met	Arg	Leu	Cys	Thr	Glu	Glu	Cys	Arg	Val	Leu	Gly	His
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Ser	Asp	Gln	Cys	Trp	Met	Pro	Pro	Leu	Pro	Ser	Pro	Ser	Ser	Asp	Tyr
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Ser	Glu	Met	Ser	Ser	Val	Phe	Gln	Arg	Leu	Leu	Pro	Pro	Ser	Leu	Asp
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Thr	Asn	Cys	Gly	Pro	Pro	Leu	Gly	Thr	His	Ser	Ser	Val	Gln	Pro	Ser
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Lys Phe Gln Val Thr Glu Glu Val Pro Ser Gly Thr Val Ile Gly Lys  
35 40 45  
Asp Ala Phe Gln Ile Leu Gln Leu Pro Gln Ala Leu Pro Val Gln Met  
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Asn Ser Glu Asp Gly Leu Leu Ser Thr Ser Ser Arg Leu Asp Arg Glu  
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Pro Ser Glu His Phe Ala Leu Asp Val Ile Val Gly Pro Asp Glu Thr  
165 170 175  
Lys His Ala Glu Leu Val Val Val Lys Glu Leu Asp Arg Glu Leu His  
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Ser Tyr Phe Asp Leu Val Leu Thr Ala Tyr Asp Asn Gly Asn Pro Pro  
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Lys Ser Gly Ile Ser Val Val Lys Val Asn Val Leu Asp Ser Asn Asp  
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Cys Lys Val Leu Ile Lys Val Leu Asp Val Asn Asp Asn Ala Pro Ser		
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Ile Leu Ile Thr Trp Ala Ser Gln Thr Ser Leu Val Ser Glu Asp Leu		
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Pro Arg Asp Ser Phe Ile Ala Leu Val Ser Ala Asn Asp Leu Asp Ser		
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Phe Arg Leu Lys Arg Thr Asn Gly Asn Thr Tyr Met Leu Leu Thr Asn		
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Ala Thr Leu Asp Arg Glu Gln Trp Pro Ile Tyr Thr Leu Thr Val Phe		
	405	410
Ala Gln Asp Gln Gly Pro Gln Pro Leu Ser Ala Glu Lys Glu Leu Gln		
	420	425
Ile Gln Val Ser Asp Val Asn Asp Asn Ala Pro Val Phe Glu Lys Ser		
	435	440
Arg Tyr Glu Val Ser Thr Trp Glu Asn Asn Pro Pro Ser Leu His Leu		
	450	455
Ile Thr Leu Lys Ala His Asp Ala Asp Leu Gly Ser Asn Gly Lys Val		
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Ser Tyr Arg Ile Lys Asp Ser Pro Val Ser His Leu Val Ile Ile Asp		
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Phe Glu Thr Gly Glu Val Thr Ala Gln Arg Ser Leu Asp Tyr Glu Gln		
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Lys Ala Thr His Ser Pro Trp Ser Phe Leu Leu Leu Thr Ile Val Ala		
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Gln Val Ser Leu Lys Val Val Phe Val Thr Ser Val Asp His Leu Arg		
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	690	695
Ile Cys Leu Ala Val Leu Leu Ala Ile Phe Gly Leu Leu Leu Ala Leu		
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Phe Val Ser Ile Cys Arg Thr Glu Arg Lys Asp Asn Arg Ala Tyr Asn		
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Cys Arg Glu Ala Glu Ser Ser Tyr Arg His Gln Pro Lys Arg Pro Gln		
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		750



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Ser	Ser	Arg	Gly	Thr	Ile	Pro	Asp	Thr	Glu	Gly	Leu	Val	Gly	Leu	Lys		
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Ser	Glu	Glu	Pro	Arg	Thr	Phe	Gln	Thr	Phe	Gly	Lys	Thr	Val	Gly	Pro		
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Gly	Pro	Glu	Leu	Ser	Pro	Thr	Gly	Thr	Arg	Leu	Ala	Ser	Thr	Phe	Val		
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 <212> DNA  
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<212> PRT
<213> Homo sapiens

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Gly Gly Thr Gln Ile Thr Pro Leu Asn Asp Asn Val Thr Ile Phe Cys
35          40          45
Asn Ile Phe Tyr Ser Gln Pro Leu Asn Ile Thr Ser Met Gly Ile Thr
50          55          60
Trp Phe Trp Lys Ser Leu Thr Phe Asp Lys Glu Val Lys Val Phe Glu
65          70          75          80
Phe Phe Gly Asp His Gln Glu Ala Phe Arg Pro Gly Ala Ile Val Ser
85          90          95
Pro Trp Arg Leu Lys Ser Gly Asp Ala Ser Leu Arg Leu Pro Gly Ile
100          105          110
Gln Leu Glu Glu Ala Gly Glu Tyr Arg Cys Glu Val Val Val Thr Pro
115          120          125
Leu Lys Ala Gln Gly Thr Val Gln Leu Glu Val Val Ala Ser Pro Ala
130          135          140
Ser Arg Leu Leu Leu Asp Gln Val Gly Met Lys Glu Asn Glu Asp Lys
145          150          155          160
Tyr Met Cys Glu Ser Ser Gly Phe Tyr Pro Glu Ala Ile Asn Ile Thr
165          170          175
Trp Glu Lys Gln Thr Gln Lys Phe Pro His Pro Ile Glu Ile Ser Glu
180          185          190
Asp Val Ile Thr Gly Pro Thr Ile Lys Asn Met Asp Gly Thr Phe Asn
195          200          205
Val Thr Ser Cys Leu Lys Leu Asn Ser Ser Gln Glu Asp Pro Gly Thr
210          215          220
Val Tyr Gln Cys Val Val Arg His Ala Ser Leu His Thr Pro Leu Arg
225          230          235          240
Ser Asn Phe Thr Leu Thr Ala Ala Arg His Ser Leu Ser Glu Thr Glu
245          250          255
Lys Thr Asp Asn Phe Ser Ile His Trp Trp Pro Ile Ser Phe Ile Gly
260          265          270
Val Gly Leu Val Leu Leu Ile Val Leu Ile Pro Trp Lys Lys Val Arg
275          280          285

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Gly	Ser	Lys	Ala	Lys	Phe	Ser	Pro	Val	Ser	Trp	Ala	Ser	Lys	Lys	Leu
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305					310					315					320
Gly	Lys	Asp	Phe	Val	Ser	Pro	Ser	Ser	Pro	Ser	Gly	Val	Gly	Asn	Val
				325					330					335	
Gly	Cys	Val	Pro	Ile	Gln	Phe	Pro	Ile	Thr	Glu	Asp	Leu	Ala	Val	Thr
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Tyr	His	Leu	Thr	Ser	Val	Trp	Trp	Phe	Val	Thr	Leu	Gly			
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 <212> PRT  
 <213> Homo sapiens

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Asn	Ile	Thr	Ser	Met	Gly	Ile	Thr	Trp	Phe	Trp	Lys	Ser	Leu	Thr	Phe
		35				40						45			
Asp	Lys	Glu	Val	Lys	Val	Phe	Glu	Phe	Phe	Gly	Asp	His	Gln	Glu	Ala
	50					55				60					
Phe	Arg	Pro	Gly	Ala	Ile	Val	Ser	Pro	Trp	Arg	Leu	Lys	Ser	Gly	Asp
65					70				75						80
Ala	Ser	Leu	Arg	Leu	Pro	Gly	Ile	Gln	Leu	Glu	Glu	Ala	Gly	Glu	Tyr
				85				90						95	
Arg	Cys	Glu	Val	Val	Val	Thr	Pro	Leu	Lys	Ala	Gln	Gly	Thr	Val	Gln
			100					105						110	
Leu	Glu	Val	Val	Ala	Ser	Pro	Ala	Ser	Arg	Leu	Leu	Leu	Asp	Gln	Val
		115					120						125		
Gly	Met	Lys	Glu	Asn	Glu	Asp	Lys	Tyr	Met	Cys	Glu	Ser	Ser	Gly	Phe
	130					135				140					
Tyr	Pro	Glu	Ala	Ile	Asn	Ile	Thr	Trp	Glu	Lys	Gln	Thr	Gln	Lys	Phe
145					150					155					160
Pro	His	Pro	Ile	Glu	Ile	Ser	Glu	Asp	Val	Ile	Thr	Gly	Pro	Thr	Ile
			165						170					175	
Lys	Asn	Met	Asp	Gly	Thr	Phe	Asn	Val	Thr	Ser	Cys	Leu	Lys	Leu	Asn
			180					185					190		
Ser	Ser	Gln	Glu	Asp	Pro	Gly	Thr	Val	Tyr	Gln	Cys	Val	Val	Arg	His
		195					200					205			
Ala	Ser	Leu	His	Thr	Pro	Leu	Arg	Ser	Asn	Phe	Thr	Leu	Thr	Ala	Ala
		210				215					220				
Arg	His	Ser	Leu	Ser	Glu	Thr	Glu	Lys	Thr	Asp	Asn	Phe	Ser	Ile	His
225					230					235					240
Trp	Trp	Pro	Ile	Ser	Phe	Ile	Gly	Val	Gly	Leu	Val	Leu	Leu	Ile	Val
			245						250					255	
Leu	Ile	Pro	Trp	Lys	Lys	Val	Arg	Gly	Ser	Lys	Ala	Lys	Phe	Ser	Pro
			260					265					270		
Val	Ser	Trp	Ala	Ser	Lys	Lys	Leu	Leu	Glu	Gln	Leu	Leu	Pro	Thr	Leu
		275					280					285			
Gln	Ala	Ser	Arg	Asp	Arg	Pro	Ala	Gly	Lys	Asp	Phe	Val	Ser	Pro	Ser
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Ser Pro Ser Gly Val Gly Asn Val Gly Cys Val Pro Ile Gln Phe Pro  
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 <212> PRT  
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 35 40 45  
 Lys Glu Val Lys Val Phe Glu Phe Phe Gly Asp His Gln Glu Ala Phe  
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 Arg Pro Gly Ala Ile Val Ser Pro Trp Arg Leu Lys Ser Gly Asp Ala  
 65 70 75 80  
 Ser Leu Arg Leu Pro Gly Ile Gln Leu Glu Glu Ala Gly Glu Tyr Arg  
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 Cys Glu Val Val Thr Pro Leu Lys Ala Gln Gly Thr Val Gln Leu  
 100 105 110  
 Glu Val Val Ala Ser Pro Ala Ser Arg Leu Leu Leu Asp Gln Val Gly  
 115 120 125  
 Met Lys Glu Asn Glu Asp Lys Tyr Met Cys Glu Ser Ser Gly Phe Tyr  
 130 135 140  
 Pro Glu Ala Ile Asn Ile Thr Trp Glu Lys Gln Thr Gln Lys Phe Pro  
 145 150 155 160  
 His Pro Ile Glu Ile Ser Glu Asp Val Ile Thr Gly Pro Thr Ile Lys  
 165 170 175  
 Asn Met Asp Gly Thr Phe Asn Val Thr Ser Cys Leu Lys Leu Asn Ser  
 180 185 190  
 Ser Gln Glu Asp Pro Gly Thr Val Tyr Gln Cys Val Val Arg His Ala  
 195 200 205  
 Ser Leu His Thr Pro Leu Arg Ser Asn Phe Thr Leu Thr Ala Ala Arg  
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 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Phe Arg Pro Gly Ala Ile Val Ser Pro Trp Arg Leu Lys Ser Gly Asp  
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 <212> PRT  
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 Ile Thr Gly Pro Thr Ile Lys Asn Met Asp Gly Thr Phe Asn Val Thr  
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 <212> PRT  
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 <211> 83  
 <212> PRT  
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<400> 60

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			20					25					30		
Ser	Arg	Asp	Arg	Pro	Ala	Gly	Lys	Asp	Phe	Val	Ser	Pro	Ser	Ser	Pro
		35					40					45			
Ser	Gly	Val	Gly	Asn	Val	Gly	Cys	Val	Pro	Ile	Gln	Phe	Pro	Ile	Thr
	50					55					60				
Glu	Asp	Leu	Ala	Val	Thr	Tyr	His	Leu	Thr	Ser	Val	Trp	Trp	Phe	Val
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<210> 72

<211> 2145

<212> DNA

<213> Homo sapiens

<400> 72

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<210> 73  
 <211> 715  
 <212> PRT  
 <213> Homo sapiens

<400> 73

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Gln	Ala	Glu	Glu	Leu	Gly	Asp	Gly	Cys	Gly	His	Leu	Val	Thr	Tyr	Gln
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Asp	Ser	Gly	Thr	Met	Thr	Ser	Lys	Asn	Tyr	Pro	Gly	Thr	Tyr	Pro	Asn
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His	Thr	Val	Cys	Glu	Lys	Thr	Ile	Thr	Val	Pro	Lys	Gly	Lys	Arg	Leu
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Ile	Leu	Arg	Leu	Gly	Asp	Leu	Asp	Ile	Glu	Ser	Gln	Thr	Cys	Ala	Ser
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Asp	Tyr	Leu	Leu	Phe	Thr	Ser	Ser	Ser	Asp	Gln	Tyr	Gly	Pro	Tyr	Cys
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Thr	Val	Arg	Phe	Glu	Ser	Gly	Ser	His	Ile	Ser	Gly	Arg	Gly	Phe	Leu
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Gly	Cys	Arg	Asp	Val	Ala	Gly	Asp	Ile	Ser	Gly	Asn	Met	Val	Asp	Gly
			180					185					190		
Tyr	Arg	Asp	Thr	Ser	Leu	Leu	Cys	Lys	Ala	Ala	Ile	His	Ala	Gly	Ile
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Ile	Ser	Arg	Tyr	Glu	Gly	Ile	Leu	Ala	Asn	Gly	Val	Leu	Ser	Arg	Asp
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Gly	Ser	Leu	Ser	Asp	Lys	Arg	Phe	Leu	Phe	Thr	Ser	Asn	Gly	Cys	Ser
			245						250					255	
Arg	Ser	Leu	Ser	Phe	Glu	Pro	Asp	Gly	Gln	Ile	Arg	Ala	Ser	Ser	Ser
		260						265					270		
Trp	Gln	Ser	Val	Asn	Glu	Ser	Gly	Asp	Gln	Val	His	Trp	Ser	Pro	Gly
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Gln	Ala	Arg	Leu	Gln	Asp	Gln	Gly	Pro	Ser	Trp	Ala	Ser	Gly	Asp	Ser
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Ser	Asn	Asn	His	Lys	Pro	Arg	Glu	Trp	Leu	Glu	Ile	Asp	Leu	Gly	Glu
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Lys	Lys	Lys	Ile	Thr	Gly	Ile	Arg	Thr	Thr	Gly	Ser	Thr	Gln	Ser	Asn
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Phe	Asn	Phe	Tyr	Val	Lys	Ser	Phe	Val	Met	Asn	Phe	Lys	Asn	Asn	Asn
			340					345					350		
Ser	Lys	Trp	Lys	Thr	Tyr	Lys	Gly	Ile	Val	Asn	Asn	Glu	Glu	Lys	Val
	355						360					365			
Phe	Gln	Gly	Asn	Ser	Asn	Phe	Arg	Asp	Pro	Val	Gln	Asn	Asn	Phe	Ile
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 Gly Asn Asp Ser Leu Val Trp Arg Lys Thr Ser Gln Ser Thr Ser Val  
 420 425 430  
 Ser Thr Lys Lys Glu Asp Glu Thr Ile Thr Arg Pro Ile Pro Ser Glu  
 435 440 445  
 Glu Thr Ser Thr Gly Ile Asn Ile Thr Thr Val Ala Ile Pro Leu Val  
 450 455 460  
 Leu Leu Val Val Leu Val Phe Ala Gly Met Gly Ile Phe Ala Ala Phe  
 465 470 475 480  
 Arg Lys Lys Lys Lys Lys Gly Ser Pro Tyr Gly Ser Ala Glu Ala Gln  
 485 490 495  
 Lys Thr Asp Cys Trp Lys Gln Ile Lys Tyr Pro Phe Ala Arg His Gln  
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 Ser Ala Glu Phe Thr Ile Ser Tyr Asp Asn Glu Lys Glu Met Thr Gln  
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 Lys Leu Asp Leu Ile Thr Ser Asp Met Ala Asp Tyr Gln Gln Pro Leu  
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 Met Ile Gly Thr Gly Thr Val Thr Arg Lys Gly Ser Thr Phe Arg Pro  
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 565 570 575  
 His Tyr Asp Cys Pro Gln Arg Ala Gly Arg His Glu Tyr Ala Leu Pro  
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 Leu Ala Pro Pro Glu Pro Glu Tyr Ala Thr Pro Ile Val Glu Arg His  
 595 600 605  
 Val Leu Arg Ala His Thr Phe Ser Ala Gln Ser Gly Tyr Arg Val Pro  
 610 615 620  
 Gly Pro Gln Pro Gly His Lys His Ser Leu Ser Ser Gly Gly Phe Ser  
 625 630 635 640  
 Pro Val Ala Gly Val Gly Ala Gln Asp Gly Asp Tyr Gln Arg Pro His  
 645 650 655  
 Ser Ala Gln Pro Ala Asp Arg Gly Tyr Asp Arg Pro Lys Ala Val Ser  
 660 665 670  
 Ala Leu Ala Thr Glu Ser Gly His Pro Asp Ser Gln Lys Pro Pro Thr  
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 His Pro Gly Thr Ser Asp Ser Tyr Ser Ala Pro Arg Asp Cys Leu Thr  
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<210> 74  
 <211> 34  
 <212> PRT  
 <213> Homo sapiens

<400> 74  
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<210> 75

<211> 681  
 <212> PRT  
 <213> Homo sapiens

<400> 75

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			20					25					30		
Val	Cys	Glu	Lys	Thr	Ile	Thr	Val	Pro	Lys	Gly	Lys	Arg	Leu	Ile	Leu
		35					40					45			
Arg	Leu	Gly	Asp	Leu	Asp	Ile	Glu	Ser	Gln	Thr	Cys	Ala	Ser	Asp	Tyr
	50					55					60				
Leu	Leu	Phe	Thr	Ser	Ser	Ser	Asp	Gln	Tyr	Gly	Pro	Tyr	Cys	Gly	Ser
65					70					75					80
Met	Thr	Val	Pro	Lys	Glu	Leu	Leu	Leu	Asn	Thr	Ser	Glu	Val	Thr	Val
				85					90					95	
Arg	Phe	Glu	Ser	Gly	Ser	His	Ile	Ser	Gly	Arg	Gly	Phe	Leu	Leu	Thr
			100					105					110		
Tyr	Ala	Ser	Ser	Asp	His	Pro	Asp	Leu	Ile	Thr	Cys	Leu	Glu	Arg	Ala
		115					120					125			
Ser	His	Tyr	Leu	Lys	Thr	Glu	Tyr	Ser	Lys	Phe	Cys	Pro	Ala	Gly	Cys
	130					135					140				
Arg	Asp	Val	Ala	Gly	Asp	Ile	Ser	Gly	Asn	Met	Val	Asp	Gly	Tyr	Arg
145					150					155					160
Asp	Thr	Ser	Leu	Leu	Cys	Lys	Ala	Ala	Ile	His	Ala	Gly	Ile	Ile	Ala
				165					170					175	
Asp	Glu	Leu	Gly	Gly	Gln	Ile	Ser	Val	Leu	Gln	Arg	Lys	Gly	Ile	Ser
		180						185					190		
Arg	Tyr	Glu	Gly	Ile	Leu	Ala	Asn	Gly	Val	Leu	Ser	Arg	Asp	Gly	Ser
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Leu	Ser	Phe	Glu	Pro	Asp	Gly	Gln	Ile	Arg	Ala	Ser	Ser	Ser	Trp	Gln
225					230					235					240
Ser	Val	Asn	Glu	Ser	Gly	Asp	Gln	Val	His	Trp	Ser	Pro	Gly	Gln	Ala
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Arg	Leu	Gln	Asp	Gln	Gly	Pro	Ser	Trp	Ala	Ser	Gly	Asp	Ser	Ser	Asn
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Asn	His	Lys	Pro	Arg	Glu	Trp	Leu	Glu	Ile	Asp	Leu	Gly	Glu	Lys	Lys
		275					280					285			
Lys	Ile	Thr	Gly	Ile	Arg	Thr	Thr	Gly	Ser	Thr	Gln	Ser	Asn	Phe	Asn
	290					295					300				
Phe	Tyr	Val	Lys	Ser	Phe	Val	Met	Asn	Phe	Lys	Asn	Asn	Asn	Ser	Lys
305					310					315					320
Trp	Lys	Thr	Tyr	Lys	Gly	Ile	Val	Asn	Asn	Glu	Glu	Lys	Val	Phe	Gln
				325					330					335	
Gly	Asn	Ser	Asn	Phe	Arg	Asp	Pro	Val	Gln	Asn	Asn	Phe	Ile	Pro	Pro
			340					345					350		
Ile	Val	Ala	Arg	Tyr	Val	Arg	Val	Val	Pro	Gln	Thr	Trp	His	Gln	Arg
		355					360					365			
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	370					375					380				
Asp	Ser	Leu	Val	Trp	Arg	Lys	Thr	Ser	Gln	Ser	Thr	Ser	Val	Ser	Thr
385					390					395					400
Lys	Lys	Glu	Asp	Glu	Thr	Ile	Thr	Arg	Pro	Ile	Pro	Ser	Glu	Glu	Thr
				405					410					415	

Ser	Thr	Gly	Ile	Asn	Ile	Thr	Thr	Val	Ala	Ile	Pro	Leu	Val	Leu	Leu
			420					425					430		
Val	Val	Leu	Val	Phe	Ala	Gly	Met	Gly	Ile	Phe	Ala	Ala	Phe	Arg	Lys
		435					440					445			
Lys	Lys	Lys	Lys	Gly	Ser	Pro	Tyr	Gly	Ser	Ala	Glu	Ala	Gln	Lys	Thr
	450					455					460				
Asp	Cys	Trp	Lys	Gln	Ile	Lys	Tyr	Pro	Phe	Ala	Arg	His	Gln	Ser	Ala
465					470					475					480
Glu	Phe	Thr	Ile	Ser	Tyr	Asp	Asn	Glu	Lys	Glu	Met	Thr	Gln	Lys	Leu
				485					490					495	
Asp	Leu	Ile	Thr	Ser	Asp	Met	Ala	Asp	Tyr	Gln	Gln	Pro	Leu	Met	Ile
			500					505					510		
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Thr	Asp	Ala	Glu	Glu	Ala	Gly	Val	Ser	Thr	Asp	Ala	Gly	Gly	His	Tyr
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545					550					555					560
Pro	Pro	Glu	Pro	Glu	Tyr	Ala	Thr	Pro	Ile	Val	Glu	Arg	His	Val	Leu
				565					570					575	
Arg	Ala	His	Thr	Phe	Ser	Ala	Gln	Ser	Gly	Tyr	Arg	Val	Pro	Gly	Pro
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Gln	Pro	Gly	His	Lys	His	Ser	Leu	Ser	Ser	Gly	Gly	Phe	Ser	Pro	Val
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	610					615					620				
Gln	Pro	Ala	Asp	Arg	Gly	Tyr	Asp	Arg	Pro	Lys	Ala	Val	Ser	Ala	Leu
625					630					635					640
Ala	Thr	Glu	Ser	Gly	His	Pro	Asp	Ser	Gln	Lys	Pro	Pro	Thr	His	Pro
				645					650					655	
Gly	Thr	Ser	Asp	Ser	Tyr	Ser	Ala	Pro	Arg	Asp	Cys	Leu	Thr	Pro	Leu
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<210> 76  
 <211> 421  
 <212> PRT  
 <213> Homo sapiens

<400> 76

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			20					25					30		
Val	Cys	Glu	Lys	Thr	Ile	Thr	Val	Pro	Lys	Gly	Lys	Arg	Leu	Ile	Leu
		35					40					45			
Arg	Leu	Gly	Asp	Leu	Asp	Ile	Glu	Ser	Gln	Thr	Cys	Ala	Ser	Asp	Tyr
	50					55					60				
Leu	Leu	Phe	Thr	Ser	Ser	Ser	Asp	Gln	Tyr	Gly	Pro	Tyr	Cys	Gly	Ser
65					70					75					80
Met	Thr	Val	Pro	Lys	Glu	Leu	Leu	Leu	Asn	Thr	Ser	Glu	Val	Thr	Val
				85					90					95	
Arg	Phe	Glu	Ser	Gly	Ser	His	Ile	Ser	Gly	Arg	Gly	Phe	Leu	Leu	Thr
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Tyr	Ala	Ser	Ser	Asp	His	Pro	Asp	Leu	Ile	Thr	Cys	Leu	Glu	Arg	Ala





<400> 78

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Lys	Thr	Asp	Cys	Trp	Lys	Gln	Ile	Lys	Tyr	Pro	Phe	Ala	Arg	His	Gln
			20					25					30		
Ser	Ala	Glu	Phe	Thr	Ile	Ser	Tyr	Asp	Asn	Glu	Lys	Glu	Met	Thr	Gln
		35					40					45			
Lys	Leu	Asp	Leu	Ile	Thr	Ser	Asp	Met	Ala	Asp	Tyr	Gln	Gln	Pro	Leu
	50					55					60				
Met	Ile	Gly	Thr	Gly	Thr	Val	Thr	Arg	Lys	Gly	Ser	Thr	Phe	Arg	Pro
65					70					75					80
Met	Asp	Thr	Asp	Ala	Glu	Glu	Ala	Gly	Val	Ser	Thr	Asp	Ala	Gly	Gly
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His	Tyr	Asp	Cys	Pro	Gln	Arg	Ala	Gly	Arg	His	Glu	Tyr	Ala	Leu	Pro
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Leu	Ala	Pro	Pro	Glu	Pro	Glu	Tyr	Ala	Thr	Pro	Ile	Val	Glu	Arg	His
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			180					185					190		
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<212> DNA
<213> Homo sapiens

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<212> PRT
<213> Homo sapiens

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          20          25          30
Lys Ser Asn Asp Gly Phe Thr Thr Thr Arg Ser Tyr Gly Thr Val Ser
          35          40          45
Gln Ile Phe Gly Ser Ser Ser Pro Ser Pro Asn Gly Phe Ile Thr Thr
          50          55          60
Arg Ser Tyr Gly Thr Val Cys Pro Lys Asp Trp Glu Phe Tyr Gln Ala
65          70          75          80
Arg Cys Phe Phe Leu Ser Thr Ser Glu Ser Ser Trp Asn Glu Ser Arg
          85          90          95
Asp Phe Cys Lys Gly Lys Gly Ser Thr Leu Ala Ile Val Asn Thr Pro
          100         105         110
Glu Lys Leu Lys Phe Leu Gln Asp Ile Thr Asp Ala Glu Lys Tyr Phe
          115         120         125
Ile Gly Leu Ile Tyr His Arg Glu Glu Lys Arg Trp Arg Trp Ile Asn
          130         135         140

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Asn	Ser	Val	Phe	Asn	Gly	Asn	Val	Thr	Asn	Gln	Asn	Gln	Asn	Phe	Asn
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<210> 84  
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 <212> PRT  
 <213> Homo sapiens

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 <212> PRT  
 <213> Homo sapiens

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Ser	Tyr	Gly	Thr	Val	Ser	Gln	Ile	Phe	Gly	Ser	Ser	Ser	Pro	Ser	Pro
			20					25					30		
Asn	Gly	Phe	Ile	Thr	Thr	Arg	Ser	Tyr	Gly	Thr	Val	Cys	Pro	Lys	Asp
		35					40					45			
Trp	Glu	Phe	Tyr	Gln	Ala	Arg	Cys	Phe	Phe	Leu	Ser	Thr	Ser	Glu	Ser
	50					55				60					
Ser	Trp	Asn	Glu	Ser	Arg	Asp	Phe	Cys	Lys	Gly	Lys	Gly	Ser	Thr	Leu
65					70					75					80
Ala	Ile	Val	Asn	Thr	Pro	Glu	Lys	Leu	Lys	Phe	Leu	Gln	Asp	Ile	Thr
			85						90					95	
Asp	Ala	Glu	Lys	Tyr	Phe	Ile	Gly	Leu	Ile	Tyr	His	Arg	Glu	Glu	Lys
			100					105					110		
Arg	Trp	Arg	Trp	Ile	Asn	Asn	Ser	Val	Phe	Asn	Gly	Asn	Val	Thr	Asn
		115					120					125			
Gln	Asn	Gln	Asn	Phe	Asn	Cys	Ala	Thr	Ile	Gly	Leu	Thr	Lys	Thr	Phe
		130				135					140				
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145					150					155					160
Ala	Lys														

<210> 86  
 <211> 187  
 <212> PRT  
 <213> Homo sapiens

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1				5				10					15			
Val	Val	Gly	Met	Thr	Leu	Phe	Leu	Leu	Tyr	Phe	Pro	Gln	Ile	Phe	Asn	
			20					25					30			
Lys	Ser	Asn	Asp	Gly	Phe	Thr	Thr	Thr	Arg	Ser	Tyr	Gly	Thr	Val	Ser	
		35					40					45				
Gln	Ile	Phe	Gly	Ser	Ser	Ser	Pro	Ser	Pro	Asn	Gly	Phe	Ile	Thr	Thr	
	50					55					60					
Arg	Ser	Tyr	Gly	Thr	Val	Cys	Pro	Lys	Asp	Trp	Glu	Phe	Tyr	Gln	Ala	
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Arg	Cys	Phe	Phe	Leu	Ser	Thr	Ser	Glu	Ser	Ser	Trp	Asn	Glu	Ser	Arg	
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Asp	Phe	Cys	Lys	Gly	Lys	Gly	Ser	Thr	Leu	Ala	Ile	Val	Asn	Thr	Pro	
			100					105					110			
Glu	Lys	Leu	Phe	Leu	Gln	Asp	Ile	Thr	Asp	Ala	Glu	Lys	Tyr	Phe	Ile	
		115					120					125				
Gly	Leu	Ile	Tyr	His	Arg	Glu	Glu	Lys	Arg	Trp	Arg	Trp	Ile	Asn	Asn	
	130					135						140				
Ser	Val	Phe	Asn	Gly	Asn	Val	Thr	Asn	Gln	Asn	Gln	Asn	Phe	Asn	Cys	
145					150				155						160	
Ala	Thr	Ile	Gly	Leu	Thr	Lys	Thr	Phe	Asp	Ala	Ala	Ser	Cys	Asp	Ile	
				165					170					175		
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<223> Unknown

<400> 87

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<210> 88

<211> 190

<212> PRT

<213> Homo sapiens

<400> 88

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			20					25					30			
Lys	Ser	Asn	Asp	Gly	Phe	Val	Pro	Thr	Glu	Ser	Tyr	Gly	Thr	Thr	Ser	
		35					40					45				
Val	Gln	Asn	Val	Ser	Gln	Ile	Phe	Gly	Arg	Asn	Asp	Glu	Ser	Thr	Met	
	50					55					60					
Pro	Thr	Arg	Ser	Tyr	Gly	Thr	Val	Cys	Pro	Arg	Asn	Trp	Asp	Phe	His	
65				70					75						80	
Gln	Gly	Lys	Cys	Phe	Phe	Phe	Ser	Phe	Ser	Glu	Ser	Pro	Trp	Lys	Asp	
				85				90						95		
Ser	Met	Asp	Tyr	Cys	Ala	Thr	Gln	Gly	Ser	Thr	Leu	Ala	Ile	Val	Asn	
			100					105					110			
Thr	Pro	Glu	Lys	Leu	Lys	Tyr	Leu	Gln	Asp	Ile	Ala	Gly	Ile	Glu	Asn	
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Tyr	Phe	Ile	Gly	Leu	Val	Arg	Gln	Pro	Gly	Glu	Lys	Lys	Trp	Arg	Trp	
	130					135					140					

Ile	Asn	Asn	Ser	Val	Phe	Asn	Gly	Asn	Val	Thr	Asn	Gln	Asp	Gln	Asn
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Phe	Asp	Cys	Val	Thr	Ile	Gly	Leu	Thr	Lys	Thr	Tyr	Asp	Ala	Ala	Ser
			165						170					175	
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<210> 89

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<210> 91

<211> 4018

<212> DNA

<213> Homo sapiens

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<223> n = A,T,C or G

<400> 91

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Lys Ser Asn Asp Gly Phe Thr Thr Thr Arg Ser Tyr Gly Thr Val Ser
          35          40          45
Gln Ile Phe Gly Ser Ser Ser Pro Ser Pro Asn Gly Phe Ile Thr Thr
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Arg Ser Tyr Gly Thr Val Cys Pro Lys Asp Trp Glu Phe Tyr Gln Ala
65          70          75          80
Arg Cys Phe Phe Leu Ser Thr Ser Glu Ser Ser Trp Asn Glu Ser Arg
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Glu Lys Leu Lys Phe Leu Gln Asp Ile Thr Asp Ala Glu Lys Tyr Phe
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<211> 21

<212> PRT

<213> Homo sapiens

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<213> Homo sapiens

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Glu Glu Lys Arg Trp Arg Trp Ile Asn Asn Ser Val Phe Asn Gly Asn  
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 <211> 465  
 <212> DNA  
 <213> Homo sapiens

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aacaactctg	tggttcaatg
ttgcttcaaa	agaccaaacc
ctctgggctt	attgtggtag
cccacagatt	tttaacaaaa
ctgccccaaa	gactgggaat
gaaagcaggg	acttttgcaa
aaactgaagt	ttcttcagga
catcgtgaag	agaaaagggtg
aacatgccac	agtttccctgg
gggttcaccc	tggaa
tgctttaaagt	tggttggaatg
gtaacgatgg	tttcaccacc
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<210> 103  
 <211> 155  
 <212> PRT  
 <213> Homo sapiens

<400> 103  
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Lys	Ser	Asn	Asp	Gly	Phe	Thr	Thr	Thr	Arg	Ser	Tyr	Gly	Thr	Val	Cys
		35					40					45			
Pro	Lys	Asp	Trp	Glu	Phe	Tyr	Gln	Ala	Arg	Cys	Phe	Phe	Leu	Ser	Thr
	50					55					60				
Ser	Glu	Ser	Ser	Trp	Asn	Glu	Ser	Arg	Asp	Phe	Cys	Lys	Gly	Lys	Gly
65					70					75					80
Ser	Thr	Leu	Ala	Ile	Val	Asn	Thr	Pro	Glu	Lys	Leu	Lys	Phe	Leu	Gln
			85						90					95	
Asp	Ile	Thr	Asp	Ala	Glu	Lys	Tyr	Phe	Ile	Gly	Leu	Ile	Tyr	His	Arg
			100					105					110		
Glu	Glu	Lys	Arg	Trp	Arg	Trp	Ile	Asn	Asn	Ser	Val	Phe	Asn	Gly	Lys
		115					120					125			
Tyr	Val	Asn	Met	Pro	Gln	Phe	Pro	Gly	Asp	Leu	Gly	Leu	Leu	Gln	Lys
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 <212> PRT  
 <213> Homo sapiens

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 <211> 128  
 <212> PRT  
 <213> Homo sapiens

<400> 105  
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 35 40 45  
 Cys Lys Gly Lys Gly Ser Thr Leu Ala Ile Val Asn Thr Pro Glu Lys  
 50 55 60  
 Leu Lys Phe Leu Gln Asp Ile Thr Asp Ala Glu Lys Tyr Phe Ile Gly  
 65 70 75 80  
 Leu Ile Tyr His Arg Glu Glu Lys Arg Trp Arg Trp Ile Asn Asn Ser  
 85 90 95  
 Val Phe Asn Gly Lys Tyr Val Asn Met Pro Gln Phe Pro Gly Asp Leu  
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<210> 106

<211> 3925  
 <212> DNA  
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<220>  
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 tagccttcca gggagaaaga ggccctgca gctccttcat catgaactgg cacatgatca 180  
 tctctgggct tattgtggta gtgcttaaag ttgttggaat gaccttattt ctactttatt 240  
 tctgcccaca agactgggaa ttttatcaag caagatgttt tttcttatcc acttctgaat 300  
 catcttggaa tgaaagcagg gacttttgca aaggaaaagg atccacattg gcaattgtca 360  
 acacgccaga gaaactgaag tttcttcagg acataactga tgctgagaag tatttttattg 420  
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<210> 107  
 <211> 435  
 <212> DNA  
 <213> Homo sapiens

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gctgagaagt attttattgg cttaatttac catcgtgaag agaaaagggtg gcgttggtac 300
aacaactctg tgttcaatgg caatgttacc aatcagaatc agaatttcaa ctgtgcgacc 360
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gagaagaatg ccaa 435

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<210> 108  
 <211> 145  
 <212> PRT  
 <213> Homo sapiens

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<400> 108
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          20          25          30
Glu Phe Tyr Gln Ala Arg Cys Phe Phe Leu Ser Thr Ser Glu Ser Ser
          35          40          45
Trp Asn Glu Ser Arg Asp Phe Cys Lys Gly Lys Gly Ser Thr Leu Ala
          50          55          60
Ile Val Asn Thr Pro Glu Lys Leu Lys Phe Leu Gln Asp Ile Thr Asp
          65          70          75          80
Ala Glu Lys Tyr Phe Ile Gly Leu Ile Tyr His Arg Glu Glu Lys Arg
          85          90          95
Trp Arg Trp Ile Asn Asn Ser Val Phe Asn Gly Asn Val Thr Asn Gln
          100          105          110
Asn Gln Asn Phe Asn Cys Ala Thr Ile Gly Leu Thr Lys Thr Phe Asp
          115          120          125

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Ala Ala Ser Cys Asp Ile Ser Tyr Arg Arg Ile Cys Glu Lys Asn Ala  
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 Lys  
 145

<210> 109  
 <211> 22  
 <212> PRT  
 <213> Homo sapiens

<400> 109

Ile Ser Gly Leu Ile Val Val Val Leu Lys Val Val Gly Met Thr Leu  
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 Phe Leu Leu Tyr Phe Cys  
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<210> 110  
 <211> 117  
 <212> PRT  
 <213> Homo sapiens

<400> 110

Pro Lys Asp Trp Glu Phe Tyr Gln Ala Arg Cys Phe Phe Leu Ser Thr  
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 Ser Thr Leu Ala Ile Val Asn Thr Pro Glu Lys Leu Lys Phe Leu Gln  
 35 40 45  
 Asp Ile Thr Asp Ala Glu Lys Tyr Phe Ile Gly Leu Ile Tyr His Arg  
 50 55 60  
 Glu Glu Lys Arg Trp Arg Trp Ile Asn Asn Ser Val Phe Asn Gly Asn  
 65 70 75 80  
 Val Thr Asn Gln Asn Gln Asn Phe Asn Cys Ala Thr Ile Gly Leu Thr  
 85 90 95  
 Lys Thr Phe Asp Ala Ala Ser Cys Asp Ile Ser Tyr Arg Arg Ile Cys  
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 Glu Lys Asn Ala Lys  
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<210> 111  
 <211> 3898  
 <212> DNA  
 <213> Homo sapiens

<220>

<221> misc\_feature  
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 <223> n = A,T,C or G

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<210> 112
<211> 405
<212> DNA
<213> Homo sapiens

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tccacattgg caattgtcaa cagccagag aaactgaagt ttcttcagga cataactgat 240
gctgagaagt attttattgg cttaatttac catcgtgaag agaaaagggt gcgttggatc 300
aacaactctg tgttcaatgg caagtacgtg aacatgccac agtttcctgg ggatcttggg 360
ttgcttcaaa agaccaaacc tgagattgct ggggttcacc tggaa 405

```

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<210> 113
<211> 135
<212> PRT
<213> Homo sapiens

```

```

<400> 113
Met Asn Trp His Met Ile Ile Ser Gly Leu Ile Val Val Val Leu Lys
1 5 10 15
Val Val Gly Met Thr Leu Phe Leu Leu Tyr Phe Cys Pro Lys Asp Trp
20 25 30
Glu Phe Tyr Gln Ala Arg Cys Phe Phe Leu Ser Thr Ser Glu Ser Ser
35 40 45
Trp Asn Glu Ser Arg Asp Phe Cys Lys Gly Lys Gly Ser Thr Leu Ala
50 55 60
Ile Val Asn Thr Pro Glu Lys Leu Lys Phe Leu Gln Asp Ile Thr Asp
65 70 75 80
Ala Glu Lys Tyr Phe Ile Gly Leu Ile Tyr His Arg Glu Glu Lys Arg
85 90 95
Trp Arg Trp Ile Asn Asn Ser Val Phe Asn Gly Lys Tyr Val Asn Met
100 105 110
Pro Gln Phe Pro Gly Asp Leu Gly Leu Leu Gln Lys Thr Lys Pro Glu
115 120 125
Ile Ala Gly Phe Thr Leu Glu
130 135

```

```

<210> 114
<211> 22
<212> PRT
<213> Homo sapiens

```

```

<400> 114
Ile Ser Gly Leu Ile Val Val Val Leu Lys Val Val Gly Met Thr Leu
1 5 10 15
Phe Leu Leu Tyr Phe Cys
20

```

<210> 115  
 <211> 107  
 <212> PRT  
 <213> Homo sapiens

<400> 115  
 Pro Lys Asp Trp Glu Phe Tyr Gln Ala Arg Cys Phe Phe Leu Ser Thr  
 1 5 10 15  
 Ser Glu Ser Ser Trp Asn Glu Ser Arg Asp Phe Cys Lys Gly Lys Gly  
 20 25 30  
 Ser Thr Leu Ala Ile Val Asn Thr Pro Glu Lys Leu Lys Phe Leu Gln  
 35 40 45  
 Asp Ile Thr Asp Ala Glu Lys Tyr Phe Ile Gly Leu Ile Tyr His Arg  
 50 55 60  
 Glu Glu Lys Arg Trp Arg Trp Ile Asn Asn Ser Val Phe Asn Gly Lys  
 65 70 75 80  
 Tyr Val Asn Met Pro Gln Phe Pro Gly Asp Leu Gly Leu Leu Gln Lys  
 85 90 95  
 Thr Lys Pro Glu Ile Ala Gly Phe Thr Leu Glu  
 100 105

<210> 116

<220>  
 <223> Unknown

<400> 116  
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<210> 117

<220>  
 <223> Unknown

<400> 117  
 000

<210> 118

<220>  
 <223> Unknown

<400> 118  
 000

<210> 119

<220>  
 <223> Unknown

<400> 119  
 000

<210> 120

<220>

<223> Unknown

<400> 120

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<210> 121

<211> 1909

<212> DNA

<213> Homo sapiens

<400> 121

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gagagtgtcg gccttcattg aaaacaacat cgtgggtttt gaaaacttct gggaaggact 120
gtggatgaat tgcgtgaggc aggctaacat caggatgcag tgcaaatct atgattccct 180
gctggtctct tctccggacc tacaggcagc cagaggactg atgtgtgctg cttccgtgat 240
gtccttcttg gctttcatga tggccatcct tggcatgaaa tgcaccaggt gcacggggga 300
caatgagaag gtgaaggctc acattctgct gacggctgga atcatcttca tcatcacggg 360
catggtggtg ctcattccctg tgagctgggt tgccaatgcc atcatcagag atttctataa 420
ctcaatagtg aatgttgccc aaaaacgtga gcttgagaa gctctctact taggatggac 480
cacggcactg gtgctgattg ttggaggagc tctgttctgc tgcgtttttt gttgcaacga 540
aaagagcagt agctacagat actcgatacc ttcccatcgc acaacccaaa aaagtattca 600
caccggaaag aagtcaccga gcgtctactc cagaagtcag tatgtgtagt tgtgtatgtt 660
tttttaactt tactataaag ccatgcaa atgacaaaatc tatattactt tctcaaaatg 720
gaccccaaag aaactttgat ttactgttct taactgccta atcttaatta caggaaactgt 780
gcatcagcta tttatgattc tataagctat ttcagcagaa tgagatatta aacccaatgc 840
tttgattgtt ctgaaagta tagtaatttg ttttctaagg tggttcaagc atctactctt 900
tttatcattt acttcaaaat gacattgcta aagactgcat tattttacta ctgtaatttc 960
tccacgacat agcattatgt acatagatga gtgtaacatt tatatctcac atagagacat 1020
gcttatatgg ttttatttaa aatgaaatgc cagtccatta cactgaataa atagaactca 1080
actattgctt ttcagggaaa tcatggatag ggttgaagaa ggttactatt aattgtttta 1140
aaacagctta gggattaatg tcctccattt ataatagaaga ttaaaatgaa ggctttaatc 1200
agcattgtaa aggaaattga atggctttct gatatgctgt tttttagcct aggagttaga 1260
aatcctaact tctttatcct cttctcccag aggccttttt tttcttgtgt attaaattaa 1320
catttttaaa aagcagatat tttgtcaagg ggctttgcat tcaaactgct tttccagggc 1380
tatactcaga agaaagataa aagtgtgatc taagaaaaag tgatggtttt aggaaagtga 1440
aaatatTTTT gtttttTgtt ttgaagaaga atgatgcatt ttgacaagaa atcatatatg 1500
tatggatata ttttaataag tatttgagta cagactttga ggtttcatca atataaataa 1560
aagagcagaa aaatatgtct tggttttcat ttgcttacca aaaaaacaac aacaaaaaaa 1620
gttgctcttt gagaacttca cctgctccta tgtgggtacc tgagtcaaaa ttgtcatttt 1680
tgttctgtga aaaataaatt tccttcttgt accatttctg tttagtttta ctaaaatctg 1740
taaatactgt atttttctgt ttattccaaa tttgatgaaa ctgacaatcc aatttgaaag 1800
tttgtgtcga cgtctgtcta gcttaaatga atgtgttcta tttgctttat acatttatat 1860
taataaattg tacatttttc taaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1909
```

<210> 122

<211> 645

<212> DNA

<213> Homo sapiens

<400> 122

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ctgtttcttg gtggtgttgg aatggtgggc acagtggctg tcactgtcat gcctcagtgg 60
agagtgtcgg ccttcattga aaacaacatc gtgggttttg aaaacttctg ggaaggactg 120
tggtatgaatt gcgtgaggca ggctaacatc aggatgcagt gcaaaatcta tgattccctg 180
ctggctcttt ctccggacct acaggcagcc agaggactga tgtgtgctgc ttccgtgatg 240
```

```

tccttcttgg ctttcatgat ggccatcctt ggcataaaat gcaccaggtg cacggggggac 300
aatgagaagg tgaaggctca cattctgctg acggctggaa tcatcttcat catcacgggc 360
atggtggtgc tcatccctgt gagctgggtt gccaatgcca tcatcagaga tttctataac 420
tcaatagtga atgttgccca aaaacgtgag cttggagaag ctctctactt aggatggacc 480
acggcactgg tgctgattgt tggaggagct ctgttctgct gcgttttttg ttgcaacgaa 540
aagagcagta gctacagata ctcgatacct tcccatcgca caacccaaaa aagttatcac 600
accggaaaga agtcaccgag cgtctactcc agaagtcagt atgtg 645

```

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<210> 123
<211> 215
<212> PRT
<213> Homo Sapiens

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```

<400> 123
Leu Phe Leu Gly Gly Val Gly Met Val Gly Thr Val Ala Val Thr Val
  1           5           10           15
Met Pro Gln Trp Arg Val Ser Ala Phe Ile Glu Asn Asn Ile Val Val
          20           25           30
Phe Glu Asn Phe Trp Glu Gly Leu Trp Met Asn Cys Val Arg Gln Ala
          35           40           45
Asn Ile Arg Met Gln Cys Lys Ile Tyr Asp Ser Leu Leu Ala Leu Ser
          50           55           60
Pro Asp Leu Gln Ala Ala Arg Gly Leu Met Cys Ala Ala Ser Val Met
          65           70           75           80
Ser Phe Leu Ala Phe Met Met Ala Ile Leu Gly Met Lys Cys Thr Arg
          85           90           95
Cys Thr Gly Asp Asn Glu Lys Val Lys Ala His Ile Leu Leu Thr Ala
          100          105          110
Gly Ile Ile Phe Ile Ile Thr Gly Met Val Val Leu Ile Pro Val Ser
          115          120          125
Trp Val Ala Asn Ala Ile Ile Arg Asp Phe Tyr Asn Ser Ile Val Asn
          130          135          140
Val Ala Gln Lys Arg Glu Leu Gly Glu Ala Leu Tyr Leu Gly Trp Thr
          145          150          155          160
Thr Ala Leu Val Leu Ile Val Gly Gly Ala Leu Phe Cys Cys Val Phe
          165          170          175
Cys Cys Asn Glu Lys Ser Ser Ser Tyr Arg Tyr Ser Ile Pro Ser His
          180          185          190
Arg Thr Thr Gln Lys Ser Tyr His Thr Gly Lys Lys Ser Pro Ser Val
          195          200          205
Tyr Ser Arg Ser Gln Tyr Val
          210          215

```

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<210> 124
<211> 24
<212> PRT
<213> Homo sapiens

```

```

<400> 124
Leu Phe Leu Gly Gly Val Gly Met Val Gly Thr Val Ala Val Thr Val
  1           5           10           15
Met Pro Gln Trp Arg Val Ser Ala
          20

```

```

<210> 125

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<211> 47  
 <212> PRT  
 <213> Homo sapiens

<400> 125  
 Phe Ile Glu Asn Asn Ile Val Val Phe Glu Asn Phe Trp Glu Gly Leu  
 1 5 10 15  
 Trp Met Asn Cys Val Arg Gln Ala Asn Ile Arg Met Gln Cys Lys Ile  
 20 25 30  
 Tyr Asp Ser Leu Leu Ala Leu Ser Pro Asp Leu Gln Ala Ala Arg  
 35 40 45

<210> 126  
 <211> 21  
 <212> PRT  
 <213> Homo sapiens

<400> 126  
 Gly Leu Met Cys Ala Ala Ser Val Met Ser Phe Leu Ala Phe Met Met  
 1 5 10 15  
 Ala Ile Leu Gly Met  
 20

<210> 127  
 <211> 15  
 <212> PRT  
 <213> Homo sapiens

<400> 127  
 Lys Cys Thr Arg Cys Thr Gly Asp Asn Glu Lys Val Lys Ala His  
 1 5 10 15

<210> 128  
 <211> 24  
 <212> PRT  
 <213> Homo sapiens

<400> 128  
 Ile Leu Leu Thr Ala Gly Ile Ile Phe Ile Ile Thr Gly Met Val Val  
 1 5 10 15  
 Leu Ile Pro Val Ser Trp Val Ala  
 20

<210> 129  
 <211> 22  
 <212> PRT  
 <213> Homo sapiens

<400> 129  
 Asn Ala Ile Ile Arg Asp Phe Tyr Asn Ser Ile Val Asn Val Ala Gln  
 1 5 10 15  
 Lys Arg Glu Leu Gly Glu  
 20

<210> 130  
 <211> 25  
 <212> PRT  
 <213> Homo sapiens

<400> 130  
 Ala Leu Tyr Leu Gly Trp Thr Thr Ala Leu Val Leu Ile Val Gly Gly  
 1 5 10 15  
 Ala Leu Phe Cys Cys Val Phe Cys Cys  
 20 25

<210> 131  
 <211> 37  
 <212> PRT  
 <213> Homo sapiens

<400> 131  
 Asn Glu Lys Ser Ser Ser Tyr Arg Tyr Ser Ile Pro Ser His Arg Thr  
 1 5 10 15  
 Thr Gln Lys Ser Tyr His Thr Gly Lys Lys Ser Pro Ser Val Tyr Ser  
 20 25 30  
 Arg Ser Gln Tyr Val  
 35

<210> 132  
 <211> 225  
 <212> PRT  
 <213> Mus sp.

<400> 132  
 Met Ala Thr Tyr Ala Leu Gln Met Ala Ala Leu Val Leu Gly Gly Val  
 1 5 10 15  
 Gly Met Val Gly Thr Val Ala Val Thr Ile Met Pro Gln Trp Arg Val  
 20 25 30  
 Ser Ala Phe Ile Glu Ser Asn Ile Val Val Phe Glu Asn Arg Trp Glu  
 35 40 45  
 Gly Leu Trp Met Asn Cys Met Arg His Ala Asn Ile Arg Met Gln Cys  
 50 55 60  
 Lys Val Tyr Asp Ser Leu Leu Ala Leu Ser Pro Asp Leu Gln Ala Ser  
 65 70 75 80  
 Arg Gly Leu Met Cys Ala Ala Ser Val Leu Ala Phe Leu Ala Phe Met  
 85 90 95  
 Thr Ala Ile Leu Gly Met Lys Cys Thr Arg Cys Thr Gly Asp Asp Glu  
 100 105 110  
 Asn Val Lys Ser Arg Ile Leu Leu Thr Ala Gly Ile Ile Phe Phe Ile  
 115 120 125  
 Thr Gly Leu Val Val Leu Ile Pro Val Ser Trp Val Ala Asn Ser Ile  
 130 135 140  
 Ile Arg Asp Phe Tyr Asn Pro Leu Val Asp Val Ala Leu Lys Arg Glu  
 145 150 155 160  
 Leu Gly Glu Ala Leu Tyr Ile Gly Trp Thr Thr Ala Leu Val Leu Ile  
 165 170 175  
 Ala Gly Gly Ala Leu Phe Cys Cys Val Phe Cys Cys Thr Glu Arg Ser



			180					185				190			
Asn	Ser	Tyr	Arg	Tyr	Ser	Val	Pro	Ser	His	Arg	Thr	Thr	Gln	Arg	Ser
		195					200					205			
Phe	His	Ala	Glu	Lys	Arg	Ser	Pro	Ser	Ile	Tyr	Ser	Lys	Ser	Gln	Tyr
	210					215					220				
Val															
225															

<210> 133  
 <211> 678  
 <212> PRT  
 <213> Mus sp.

<400> 133

Ala	Thr	Gly	Gly	Cys	Ala	Ala	Cys	Cys	Thr	Ala	Cys	Gly	Cys	Thr	Cys
1				5					10					15	
Thr	Thr	Cys	Ala	Ala	Ala	Thr	Gly	Gly	Cys	Thr	Gly	Cys	Ala	Cys	Thr
			20					25					30		
Gly	Gly	Thr	Gly	Cys	Thr	Thr	Gly	Gly	Thr	Gly	Gly	Thr	Gly	Thr	Thr
		35					40					45			
Gly	Gly	Cys	Ala	Thr	Gly	Gly	Thr	Gly	Gly	Gly	Cys	Ala	Cys	Gly	Gly
	50					55					60				
Thr	Gly	Gly	Cys	Thr	Gly	Thr	Gly	Ala	Cys	Thr	Ala	Thr	Cys	Ala	Thr
65					70					75					80
Gly	Cys	Cys	Thr	Cys	Ala	Gly	Thr	Gly	Gly	Ala	Gly	Ala	Gly	Thr	Gly
				85					90					95	
Thr	Cys	Thr	Gly	Cys	Cys	Thr	Thr	Cys	Ala	Thr	Cys	Gly	Ala	Ala	Ala
			100					105					110		
Gly	Thr	Ala	Ala	Cys	Ala	Thr	Thr	Gly	Thr	Gly	Gly	Thr	Gly	Thr	Thr
	115						120					125			
Thr	Gly	Ala	Gly	Ala	Ala	Cys	Cys	Gly	Cys	Thr	Gly	Gly	Gly	Ala	Ala
	130					135					140				
Gly	Gly	Cys	Thr	Thr	Gly	Thr	Gly	Gly	Ala	Thr	Gly	Ala	Ala	Thr	Thr
145					150					155					160
Gly	Thr	Ala	Thr	Gly	Ala	Gly	Gly	Cys	Ala	Thr	Gly	Cys	Cys	Ala	Ala
				165					170					175	
Cys	Ala	Thr	Cys	Ala	Gly	Ala	Ala	Thr	Gly	Cys	Ala	Gly	Thr	Gly	Cys
			180					185					190		
Ala	Ala	Gly	Gly	Thr	Cys	Thr	Ala	Cys	Gly	Ala	Cys	Thr	Cys	Cys	Cys
		195					200					205			
Thr	Gly	Cys	Thr	Gly	Gly	Cys	Thr	Cys	Thr	Thr	Ala	Gly	Thr	Cys	Cys
	210					215					220				
Ala	Gly	Ala	Cys	Cys	Thr	Cys	Cys	Ala	Gly	Gly	Cys	Ala	Thr	Cys	Cys
225					230					235					240
Cys	Gly	Ala	Gly	Gly	Ala	Cys	Thr	Gly	Ala	Thr	Gly	Thr	Gly	Thr	Gly
				245					250					255	
Cys	Thr	Gly	Cys	Gly	Thr	Cys	Cys	Gly	Thr	Cys	Thr	Thr	Gly	Gly	Cys
			260					265					270		
Thr	Thr	Thr	Cys	Thr	Thr	Gly	Gly	Cys	Thr	Thr	Thr	Cys	Ala	Thr	Gly
		275					280					285			
Ala	Cys	Ala	Gly	Cys	Cys	Ala	Thr	Cys	Cys	Thr	Cys	Gly	Gly	Ala	Ala
	290					295					300				
Thr	Gly	Ala	Ala	Gly	Thr	Gly	Cys	Ala	Cys	Cys	Ala	Gly	Ala	Thr	Gly
305					310					315					320
Cys	Ala	Cys	Gly	Gly	Gly	Gly	Gly	Ala	Cys	Gly	Ala	Thr	Gly	Ala	Gly
				325					330					335	

Ala Ala Cys Gly Thr Gly Ala Ala Gly Ala Gly Cys Cys Gly Cys Ala  
 340 345 350  
 Thr Cys Thr Thr Gly Cys Thr Gly Ala Cys Ala Gly Cys Cys Gly Gly  
 355 360 365  
 Ala Ala Thr Cys Ala Thr Cys Thr Thr Cys Thr Thr Cys Ala Thr Cys  
 370 375 380  
 Ala Cys Cys Gly Gly Cys Thr Thr Gly Gly Thr Thr Gly Thr Gly Cys  
 385 390 395 400  
 Thr Cys Ala Thr Cys Cys Cys Thr Gly Thr Cys Ala Gly Cys Thr Gly  
 405 410 415  
 Gly Gly Thr Thr Gly Cys Cys Ala Ala Thr Thr Cys Cys Ala Thr Cys  
 420 425 430  
 Ala Thr Cys Ala Gly Ala Gly Ala Cys Thr Thr Cys Thr Ala Cys Ala  
 435 440 445  
 Ala Cys Cys Cys Ala Cys Thr Gly Gly Thr Gly Gly Ala Thr Gly Thr  
 450 455 460  
 Gly Gly Cys Cys Cys Thr Ala Ala Ala Gly Cys Gly Cys Gly Ala Gly  
 465 470 475 480  
 Cys Thr Gly Gly Gly Ala Gly Ala Ala Gly Cys Cys Cys Thr Cys Thr  
 485 490 495  
 Ala Cys Ala Thr Ala Gly Gly Cys Thr Gly Gly Ala Cys Cys Ala Cys  
 500 505 510  
 Ala Gly Cys Gly Cys Thr Gly Gly Thr Gly Cys Thr Gly Ala Thr Cys  
 515 520 525  
 Gly Cys Thr Gly Gly Ala Gly Gly Ala Gly Cys Ala Cys Thr Gly Thr  
 530 535 540  
 Thr Cys Thr Gly Thr Thr Gly Thr Gly Thr Gly Thr Thr Thr Thr Gly  
 545 550 555 560  
 Thr Thr Gly Thr Ala Cys Thr Gly Ala Ala Ala Gly Gly Ala Gly Cys  
 565 570 575  
 Ala Ala Cys Ala Gly Thr Thr Ala Cys Ala Gly Gly Thr Ala Cys Thr  
 580 585 590  
 Cys Gly Gly Thr Ala Cys Cys Ala Thr Cys Cys Cys Ala Thr Cys Gly  
 595 600 605  
 Cys Ala Cys Cys Ala Cys Thr Cys Ala Ala Cys Gly Gly Ala Gly Thr  
 610 615 620  
 Thr Thr Cys Cys Ala Cys Gly Cys Cys Gly Ala Ala Ala Ala Gly Ala  
 625 630 635 640  
 Gly Ala Thr Cys Thr Cys Cys Gly Ala Gly Cys Ala Thr Ala Thr Ala  
 645 650 655  
 Cys Thr Cys Cys Ala Ala Ala Ala Gly Thr Cys Ala Gly Thr Ala Thr  
 660 665 670  
 Gly Thr Gly Thr Ala Gly  
 675

<210> 134  
 <211> 1090  
 <212> PRT  
 <213> Homo sapiens

<400> 134  
 Gly Gly Gly Gly Cys Ala Gly Ala Ala Thr Gly Ala Gly Ala Thr Ala  
 1 5 10 15  
 Thr Thr Ala Ala Ala Cys Cys Cys Ala Ala Thr Gly Cys Thr Thr Thr  
 20 25 30  
 Gly Ala Thr Thr Gly Thr Thr Cys Thr Ala Gly Ala Ala Ala Gly Thr





Thr Thr Cys Thr Gly Thr Thr Thr Ala Thr Thr Cys Cys Ala Ala Ala  
 945 950 955 960  
 Thr Thr Thr Gly Ala Thr Gly Ala Ala Ala Cys Thr Gly Ala Cys Ala  
 965 970 975  
 Ala Thr Cys Cys Ala Ala Thr Thr Thr Gly Ala Ala Ala Gly Thr Thr  
 980 985 990  
 Thr Gly Thr Gly Thr Cys Gly Ala Cys Gly Thr Cys Thr Gly Thr Cys  
 995 1000 1005  
 Thr Ala Gly Cys Thr Thr Ala Ala Ala Thr Gly Ala Ala Thr Gly Thr  
 1010 1015 1020  
 Gly Thr Thr Cys Thr Ala Thr Thr Thr Gly Cys Thr Thr Thr Ala Thr  
 1025 1030 1035 1040  
 Ala Cys Ala Thr Thr Ala Thr Ala Thr Thr Ala Ala Thr Ala Ala  
 1045 1050 1055  
 Ala Thr Thr Gly Thr Ala Cys Ala Thr Thr Thr Thr Thr Cys Cys Ala  
 1060 1065 1070  
 Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala  
 1075 1080 1085  
 Ala Ala  
 1090

<210> 135  
 <211> 209  
 <212> PRT  
 <213> Homo sapiens

<400> 135  
 Met Ala Ser Met Gly Leu Gln Val Met Gly Ile Ala Leu Ala Val Leu  
 1 5 10 15  
 Gly Trp Leu Ala Val Met Leu Cys Cys Ala Leu Pro Met Trp Arg Val  
 20 25 30  
 Thr Ala Phe Ile Gly Ser Asn Ile Val Thr Ser Gln Thr Ile Trp Glu  
 35 40 45  
 Gly Leu Trp Met Asn Cys Val Val Gln Ser Thr Gly Gln Met Gln Cys  
 50 55 60  
 Lys Val Tyr Asp Ser Leu Leu Ala Leu Pro Gln Asp Leu Gln Ala Ala  
 65 70 75 80  
 Arg Ala Leu Val Ile Ile Ser Ile Ile Val Ala Ala Leu Gly Val Leu  
 85 90 95  
 Leu Ser Val Val Gly Gly Lys Cys Thr Asn Cys Leu Glu Asp Glu Ser  
 100 105 110  
 Ala Lys Ala Lys Thr Met Ile Val Ala Gly Val Val Phe Leu Leu Ala  
 115 120 125  
 Gly Leu Met Val Ile Val Pro Val Ser Trp Thr Ala His Asn Ile Ile  
 130 135 140  
 Gln Asp Phe Tyr Asn Pro Leu Val Ala Ser Gly Gln Lys Arg Glu Met  
 145 150 155 160  
 Gly Ala Ser Leu Tyr Val Gly Trp Ala Ala Ser Gly Leu Leu Leu Leu  
 165 170 175  
 Gly Gly Gly Leu Leu Cys Cys Asn Cys Pro Pro Arg Thr Asp Lys Pro  
 180 185 190  
 Tyr Ser Ala Lys Tyr Ser Ala Ala Arg Ser Ala Ala Ala Ser Asn Tyr  
 195 200 205  
 Val

<210> 136  
 <211> 210  
 <212> PRT  
 <213> Mus sp.

<400> 136  
 Met Ala Ser Met Gly Leu Gln Val Leu Gly Ile Ser Leu Ala Val Leu  
 1 5 10 15  
 Gly Trp Leu Gly Ile Ile Leu Ser Cys Ala Leu Pro Met Trp Arg Val  
 20 25 30  
 Thr Ala Phe Ile Gly Ser Asn Ile Val Thr Ala Gln Thr Ser Trp Glu  
 35 40 45  
 Gly Leu Trp Met Asn Cys Val Val Gln Ser Thr Gly Gln Met Gln Cys  
 50 55 60  
 Lys Met Tyr Asp Ser Met Leu Ala Leu Pro Gln Asp Leu Gln Ala Ala  
 65 70 75 80  
 Arg Ala Leu Met Val Ile Ser Ile Ile Val Gly Ala Leu Gly Met Leu  
 85 90 95  
 Leu Ser Val Val Gly Gly Lys Cys Thr Asn Cys Met Glu Asp Glu Thr  
 100 105 110  
 Val Lys Ala Lys Ile Met Ile Thr Ala Gly Ala Val Phe Ile Val Ala  
 115 120 125  
 Ser Met Leu Ile Met Val Pro Val Ser Trp Thr Ala His Asn Val Ile  
 130 135 140  
 Arg Asp Phe Tyr Asn Pro Met Val Ala Ser Gly Gln Lys Arg Glu Met  
 145 150 155 160  
 Gly Ala Ser Leu Tyr Val Gly Trp Ala Ala Ser Gly Leu Leu Leu Leu  
 165 170 175  
 Gly Gly Gly Leu Leu Cys Cys Ser Cys Pro Pro Arg Ser Asn Asp Lys  
 180 185 190  
 Pro Tyr Ser Ala Lys Tyr Ser Ala Ala Arg Ser Val Pro Ala Ser Asn  
 195 200 205  
 Tyr Val  
 210

<210> 137  
 <211> 248  
 <212> PRT  
 <213> Rattus sp.

<400> 137  
 Met Ser Met Ser Leu Glu Ile Thr Gly Thr Ser Leu Ala Val Leu Gly  
 1 5 10 15  
 Trp Leu Cys Thr Ile Val Cys Cys Ala Leu Pro Met Trp Arg Val Ser  
 20 25 30  
 Ala Phe Ile Gly Ser Ser Ile Ile Thr Ala Gln Ile Thr Trp Glu Gly  
 35 40 45  
 Leu Trp Met Asn Cys Val Gln Ser Thr Gly Gln Met Gln Cys Lys Met  
 50 55 60  
 Tyr Asp Ser Leu Leu Ala Leu Pro Gln Asp Leu Gln Ala Ala Arg Ala  
 65 70 75 80  
 Leu Ile Val Val Ser Ile Leu Leu Ala Ala Phe Gly Leu Leu Val Ala  
 85 90 95  
 Leu Val Gly Ala Gln Cys Thr Asn Cys Val Gln Asp Glu Thr Ala Lys



<223> Unknown

<400> 139  
000

<210> 140

<220>

<223> Unknown

<400> 140  
000

<210> 141  
<211> 323  
<212> DNA  
<213> Homo sapiens

<400> 141  
cgagcggcgc cccgggcagg tcagacatgg gccaaaggagc cagaggccgt ccgggggtctg 60  
tgagttgagc ttgaggccgc aggatgaggg tcatcatggg gatagccagc ctgggggttcc 120  
tctgggcagt attcctgctt cctcttgtgt ttgggggtccc cacagaggag actacctttg 180  
gagaatctgt ggccctcccat ctccccaaag gctgtcgacg atgctgtgac cccgaggacc 240  
tgatgtcctc tgatgatacg gtccaggccc ctgtttcccc ttatgtcctg cctgaagtca 300  
ggccgtacct cgcccgcgac cac 323

<210> 142  
<211> 240  
<212> DNA  
<213> Homo sapiens

<400> 142  
atgagggtca tcatggggat agccagcctg gggttcctct gggcagtatt cctgcttcct 60  
cttgtgtttg ggggtccccac agaggagact acctttggag aatctgtggc ctcccatctc 120  
cccaaaggct gtcgacgatg ctgtgacccc gaggacctga tgtcctctga tgatacggtc 180  
caggccctctg tttcccctta tgtcctgcct gaagtcaggc cgtacctcgg ccgcgaccac 240

<210> 143  
<211> 80  
<212> PRT  
<213> Homo sapiens

<400> 143  
Met Arg Val Ile Met Gly Ile Ala Ser Leu Gly Phe Leu Trp Ala Val  
1 5 10 15  
Phe Leu Leu Pro Leu Val Phe Gly Val Pro Thr Glu Glu Thr Thr Phe  
20 25 30  
Gly Glu Ser Val Ala Ser His Leu Pro Lys Gly Cys Arg Arg Cys Cys  
35 40 45  
Asp Pro Glu Asp Leu Met Ser Ser Asp Asp Thr Val Gln Ala Pro Val  
50 55 60  
Ser Pro Tyr Val Leu Pro Glu Val Arg Pro Tyr Leu Gly Arg Asp His  
65 70 75 80

<210> 144



<211> 24  
<212> PRT  
<213> Homo sapiens

<400> 144  
Met Arg Val Ile Met Gly Ile Ala Ser Leu Gly Phe Leu Trp Ala Val  
1 5 10 15  
Phe Leu Leu Pro Leu Val Phe Gly  
20

<210> 145  
<211> 56  
<212> PRT  
<213> Homo sapiens

<400> 145  
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Pro Lys Gly Cys Arg Arg Cys Cys Asp Pro Glu Asp Leu Met Ser Ser  
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Asp Asp Thr Val Gln Ala Pro Val Ser Pro Tyr Val Leu Pro Glu Val  
35 40 45  
Arg Pro Tyr Leu Gly Arg Asp His  
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<400> 146  
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<210> 151

<211> 546

<212> DNA

<213> Homo sapiens

<400> 151

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taaaaacaac acccagtttt gtacttgtat aagtatggaa ttcttatata ggattgttgt 120
tggtatcatt cttatcttta catttttttaa tattaaggga cagaatacca agtgtccaat 180
gtcttggtat tatattgtta ggggtactggg cactttgggg atattgactg tattctgggt 240
ttgccccctc actattttta atccagacta ttttatacct atcagtataa ctatagtctt 300
tactcttctt cttggaattc tttttcttat tgtttattat gggagttttc acccaaacag 360
aagtgcagaa acaaaatgtg atgaaattga tggaaaacca gttctaagag aatgtagaat 420
gagatatttc ctaatggaat aagctattca tttatgatat atattttctt atattttggt 480
tcattgggta gtaaagaaaa tgtgtgttaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 540
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<210> 152

<211> 345

<212> DNA

<213> Homo sapiens

<400> 152

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ttggggatat tgactgtatt ctggggttgc cccctcacta tttttaatcc agactatttt 180
atacctatca gtataactat agttcttact cttcttcttg gaattctttt tcttattggt 240
tattatggga gttttcaccc aaacagaagt gcagaaacaa aatgtgatga aattgatgga 300
aaaccagttc taagagaatg tagaatgaga tatttcctaa tggaa                                           345
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<210> 153

<211> 115

<212> PRT

<213> Homo sapiens

<400> 153

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Phe Phe Asn Ile Lys Gly Gln Asn Thr Lys Cys Pro Met Ser Cys Tyr
           20           25           30

Tyr Ile Val Arg Val Leu Gly Thr Leu Gly Ile Leu Thr Val Phe Trp
           35           40           45
Val Cys Pro Leu Thr Ile Phe Asn Pro Asp Tyr Phe Ile Pro Ile Ser
           50           55           60
Ile Thr Ile Val Leu Thr Leu Leu Leu Gly Ile Leu Phe Leu Ile Val
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65					70					75					80
Tyr	Tyr	Gly	Ser	Phe	His	Pro	Asn	Arg	Ser	Ala	Glu	Thr	Lys	Cys	Asp
				85					90					95	
Glu	Ile	Asp	Gly	Lys	Pro	Val	Leu	Arg	Glu	Cys	Arg	Met	Arg	Tyr	Phe
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Leu	Met	Glu													
		115													

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 <213> Homo sapiens

<400> 154															
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			20												

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 <212> PRT  
 <213> Homo sapiens

<400> 155															
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Gly	Thr	Leu	Gly	Ile	Leu	Thr	Val	Phe	Trp	Val	Cys	Pro	Leu	Thr	Ile
			20					25				30			
Phe	Asn	Pro	Asp	Tyr	Phe	Ile	Pro	Ile	Ser	Ile	Thr	Ile	Val	Leu	Thr
		35					40				45				
Leu	Leu	Leu	Gly	Ile	Leu	Phe	Leu	Ile	Val	Tyr	Tyr	Gly	Ser	Phe	His
	50					55				60					
Pro	Asn	Arg	Ser	Ala	Glu	Thr	Lys	Cys	Asp	Glu	Ile	Asp	Gly	Lys	Pro
65					70				75					80	
Val	Leu	Arg	Glu	Cys	Arg	Met	Arg	Tyr	Phe	Leu	Met	Glu			
				85					90						

<210> 156  
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 <212> PRT  
 <213> Homo sapiens

<400> 156								
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<210> 157  
 <211> 18  
 <212> PRT  
 <213> Homo sapiens

<400> 157

Tyr Tyr Ile Val Arg Val Leu Gly Thr Leu Gly Ile Leu Thr Val Phe  
 1 5 10 15  
 Trp Val

<210> 158  
 <211> 9  
 <212> PRT  
 <213> Homo sapiens

<400> 158  
 Cys Pro Leu Thr Ile Phe Asn Pro Asp  
 1 5

<210> 159  
 <211> 24  
 <212> PRT  
 <213> Homo sapiens

<400> 159  
 Tyr Phe Ile Pro Ile Ser Ile Thr Ile Val Leu Thr Leu Leu Leu Gly  
 1 5 10 15  
 Ile Leu Phe Leu Ile Val Tyr Tyr  
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<210> 160  
 <211> 33  
 <212> PRT  
 <213> Homo sapiens

<400> 160  
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 1 5 10 15  
 Asp Gly Lys Pro Val Leu Arg Glu Cys Arg Met Arg Tyr Phe Leu Met  
 20 25 30  
 Glu

<210> 161  
 <220>  
 <223> Unknown

<400> 161  
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<220>  
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<400> 169  
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<400> 170  
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<210> 171  
 <211> 1684  
 <212> DNA  
 <213> Homo sapiens

<400> 171  
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 ttctgttttt gttctttata acattttctt ctgcatttcc cttagtccgg atgacggaaa 120  
 atgaagaaaa tatgcaactg gctcaggcat atctcaacca gttctactct cttgaaatag 180  
 aagggaatca tcttggtcaa agcaagaata ggagtctcat agatgacaaa attcgggaaa 240  
 tgcaagcatt ttttggtattg acagtgactg gaaaactgga ctcaaaccacc cttgagatca 300  
 tgaagacacc caggtgtggg gtgcctgatg tgggccagta tggctacacc ctccctgggt 360  
 ggagaaaata caacctcacc tacagaataa taaactatac tccggatatg gcacgagctg 420  
 ctgtggatga ggctatccaa gaaggtttag aagtgtggag caaagtcact ccactaaaat 480  
 tcaccaagat ttcaaagggg attgcagaca tcatgattgc ctttaggact cgagtccatg 540  
 gtccgtgtcc tcgctatttt gatggctcct tgggagtgtc tggccatgcc tttcctcctg 600  
 gtccgggtct ggggtgtgac actcattttg atgaggatga aaactggacc aaggatggag 660  
 caggattcaa cttgtttctt gtggctgtc atgaatttgg tcatgactg gggctctctc 720  
 actccaatga tcaaaccagc ttgatgttcc caaattatgt ctccctggat ccagaaaaat 780  
 acccactttc tcaggatgat atcaatggaa tccagtccat ctatggaggt ctgcctaagg 840  
 tacctgctaa gccaaaggaa cccactatac cccatgcctg tgaccctgac ttgacttttg 900  
 acgctatcac aactttccgc agagaagtaa tgttctttta aggcaggcac ctatggagga 960  
 tctattatga tatcacgat gttgagtttg aattaattgc ttcattctgg ccattctctg 1020  
 cagctgatct gcaagctgca tacgagaacc ccagagataa gattctggtt tttaaagatg 1080  
 aaaacttctg gatgatcaga ggatagctg tcttgccaga ttatcccaaa tccatccata 1140  
 cattaggttt tccaggacgt gtgaagaaaa tagatgcagc cgtctgtgat aagaccacaa 1200  
 gaaaaaccta cttctttgtg ggcatttggt gctggaggtt tgatgaaatg acccaaacca 1260  
 tggacaaagg attcccgcag agagtggtaa aacactttcc tggaatcagt atccgtgttg 1320  
 atgctgcttt ccagtacaaa ggattcttct ttttcagccg tggatcaaag caatttgaat 1380  
 acaacattaa gacaaagaat attaccgaa tcatgagaac taatacttgg tttcaatgca 1440  
 aagaacaaaa gaactcctca tttggttttg atatcaacaa ggaaaaagca cattcaggag 1500  
 gcataaagat attgtatcat aagagtttaa gcttgtttat ttttggtatt gttcatttgc 1560  
 tgaaaaacac ttctattttat caataaattc atagacctaa aataaacctc aacaggtctt 1620  
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 aaaa 1684

<210> 172  
 <211> 1542  
 <212> DNA  
 <213> Homo sapiens

<400> 172  
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 tactctcttg aaatagaagg gaatcatctt gttcaaagca agaataggag tctcatagat 180  
 gacaaaattc gggaaatgca agcatttttt ggattgacag tgactggaaa actggactca 240  
 aacacccttg agatcatgaa gacaccagc tgtggggtgc ctgatgtggg ccagtatggc 300  
 tacaccctcc ctgggtggag aaaatacaac ctcacctaca gaataataaa ctatactccg 360  
 gatatggcac gagctgctgt ggatgaggct atccaagaag gtttagaagt gtggagcaaa 420

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gtcactccac taaaattcac caagatttca aaggggattg cagacatcat gattgccttt 480
aggactcgag tccatggtcg gtgtcctcgc tattttgatg gtcccttggg agtgcttggc 540
catgcctttc ctctcgtgcc gggctctggg ggtgacactc attttgatga ggatgaaaac 600
tggaccaagg atggagcagg attcaacttg tttcttgggg ctgctcatga atttggtcac 660
gcactggggc tctctcactc caatgatcaa acagccttga tgttcccaaa ttatgtctcc 720
ctggatccca gaaaataccc actttctcag gatgatatca atggaatcca gtccatctat 780
ggaggtctgc ctaaggtacc tgctaagcca aaggaaccca ctatacccca tgctgtgac 840
cctgacttga cttttgacgc tatcacaact ttccgcagag aagtaatgtt ctttaaaggc 900
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ttctggccat ctctgccagc tgatctgcaa gctgcatacg agaaccocag agataagatt 1020
ctggttttta aagatgaaaa cttctgggatg atcagaggat atgctgtctt gccagattat 1080
cccaaatacca tccatacatt aggttttcca ggacgtgtga agaaaataga tgcagccgctc 1140
tgtgataaga ccacaagaaa aacctacttc tttgtgggca tttgggtgctg gaggtttgat 1200
gaaatgacct aaaccatgga caaaggattc ccgcagagag tggtaaaaca ctttcctgga 1260
atcagtatcc gtgttgatgc tgctttccag taaaaaggat tcttcttttt cagccgtgga 1320
tcaaagcaat ttgaatacaa cattaagaca aagaatatta cccgaatcat gagaactaat 1380
acttggtttc aatgcaaaga accaaagaac tcctcatttg gttttgatat caacaaggaa 1440
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ggtattgttc atttgcgtgaa aaacacttct atttatcaat aa 1542

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<210> 173  
 <211> 513  
 <212> PRT  
 <213> Homo sapiens

<400> 173

Met	Lys	Arg	Leu	Leu	Leu	Leu	Phe	Leu	Phe	Phe	Ile	Thr	Phe	Ser	Ser
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			20					25					30		
Ala	Gln	Ala	Tyr	Leu	Asn	Gln	Phe	Tyr	Ser	Leu	Glu	Ile	Glu	Gly	Asn
			35				40					45			
His	Leu	Val	Gln	Ser	Lys	Asn	Arg	Ser	Leu	Ile	Asp	Asp	Lys	Ile	Arg
	50					55					60				
Glu	Met	Gln	Ala	Phe	Phe	Gly	Leu	Thr	Val	Thr	Gly	Lys	Leu	Asp	Ser
65					70				75					80	
Asn	Thr	Leu	Glu	Ile	Met	Lys	Thr	Pro	Arg	Cys	Gly	Val	Pro	Asp	Val
			85					90					95		
Gly	Gln	Tyr	Gly	Tyr	Thr	Leu	Pro	Gly	Trp	Arg	Lys	Tyr	Asn	Leu	Thr
			100				105						110		
Tyr	Arg	Ile	Ile	Asn	Tyr	Thr	Pro	Asp	Met	Ala	Arg	Ala	Ala	Val	Asp
			115			120						125			
Glu	Ala	Ile	Gln	Glu	Gly	Leu	Glu	Val	Trp	Ser	Lys	Val	Thr	Pro	Leu
	130				135						140				
Lys	Phe	Thr	Lys	Ile	Ser	Lys	Gly	Ile	Ala	Asp	Ile	Met	Ile	Ala	Phe
145				150				155						160	
Arg	Thr	Arg	Val	His	Gly	Arg	Cys	Pro	Arg	Tyr	Phe	Asp	Gly	Pro	Leu
			165					170						175	
Gly	Val	Leu	Gly	His	Ala	Phe	Pro	Pro	Gly	Pro	Gly	Leu	Gly	Gly	Asp
			180				185						190		
Thr	His	Phe	Asp	Glu	Asp	Glu	Asn	Trp	Thr	Lys	Asp	Gly	Ala	Gly	Phe
	195					200						205			
Asn	Leu	Phe	Leu	Val	Ala	Ala	His	Glu	Phe	Gly	His	Ala	Leu	Gly	Leu
	210				215						220				
Ser	His	Ser	Asn	Asp	Gln	Thr	Ala	Leu	Met	Phe	Pro	Asn	Tyr	Val	Ser
225				230						235				240	
Leu	Asp	Pro	Arg	Lys	Tyr	Pro	Leu	Ser	Gln	Asp	Asp	Ile	Asn	Gly	Ile





Gln	Ala	Tyr	Leu	Asn	Gln	Phe	Tyr	Ser	Leu	Glu	Ile	Glu	Gly	Asn	His
			20					25					30		
Leu	Val	Gln	Ser	Lys	Asn	Arg	Ser	Leu	Ile	Asp	Asp	Lys	Ile	Arg	Glu
		35					40					45			
Met	Gln	Ala	Phe	Phe	Gly	Leu	Thr	Val	Thr	Gly	Lys	Leu	Asp	Ser	Asn
	50					55					60				
Thr	Leu	Glu	Ile	Met	Lys	Thr	Pro	Arg	Cys	Gly	Val	Pro	Asp	Val	Gly
65					70					75					80
Gln	Tyr	Gly	Tyr	Thr	Leu	Pro	Gly	Trp	Arg	Lys	Tyr	Asn	Leu	Thr	Tyr
				85					90					95	
Arg	Ile	Ile	Asn	Tyr	Thr	Pro	Asp	Met	Ala	Arg	Ala	Ala	Val	Asp	Glu
			100					105						110	
Ala	Ile	Gln	Glu	Gly	Leu	Glu	Val	Trp	Ser	Lys	Val	Thr	Pro	Leu	Lys
		115					120					125			
Phe	Thr	Lys	Ile	Ser	Lys	Gly	Ile	Ala	Asp	Ile	Met	Ile	Ala	Phe	Arg
	130					135					140				
Thr	Arg	Val	His	Gly	Arg	Cys	Pro	Arg	Tyr	Phe	Asp	Gly	Pro	Leu	Gly
145					150					155					160
Val	Leu	Gly	His	Ala	Phe	Pro	Pro	Gly	Pro	Gly	Leu	Gly	Gly	Asp	Thr
				165					170					175	
His	Phe	Asp	Glu	Asp	Glu	Asn	Trp	Thr	Lys	Asp	Gly	Ala	Gly	Phe	Asn
		180					185						190		
Leu	Phe	Leu	Val	Ala	Ala	His	Glu	Phe	Gly	His	Ala	Leu	Gly	Leu	Ser
		195					200					205			
His	Ser	Asn	Asp	Gln	Thr	Ala	Leu	Met	Phe	Pro	Asn	Tyr	Val	Ser	Leu
	210					215					220				
Asp	Pro	Arg	Lys	Tyr	Pro	Leu	Ser	Gln	Asp	Asp	Ile	Asn	Gly	Ile	Gln
225					230					235					240
Ser	Ile	Tyr	Gly	Gly	Leu	Pro	Lys	Val	Pro	Ala	Lys	Pro	Lys	Glu	Pro
			245						250					255	
Thr	Ile	Pro	His	Ala	Cys	Asp	Pro	Asp	Leu	Thr	Phe	Asp	Ala	Ile	Thr
			260					265					270		
Thr	Phe	Arg	Arg	Glu	Val	Met	Phe	Phe	Lys	Gly	Arg	His	Leu	Trp	Arg
		275					280					285			
Ile	Tyr	Tyr													
	290														

<210> 176  
 <211> 467  
 <212> PRT  
 <213> Homo sapiens

<400> 176

Met	Phe	Ser	Leu	Lys	Thr	Leu	Pro	Phe	Leu	Leu	Leu	Leu	His	Val	Gln
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Ile	Ser	Lys	Ala	Phe	Pro	Val	Ser	Ser	Lys	Glu	Lys	Asn	Thr	Lys	Thr
			20					25					30		
Val	Gln	Asp	Tyr	Leu	Glu	Lys	Phe	Tyr	Gln	Leu	Pro	Ser	Asn	Gln	Tyr
			35					40					45		
Gln	Ser	Thr	Arg	Lys	Asn	Gly	Thr	Asn	Val	Ile	Val	Glu	Lys	Leu	Lys
	50					55					60				
Glu	Met	Gln	Arg	Phe	Phe	Gly	Leu	Asn	Val	Thr	Gly	Lys	Pro	Asn	Glu
65					70					75					80
Glu	Thr	Leu	Asp	Met	Met	Lys	Lys	Pro	Arg	Cys	Gly	Val	Pro	Asp	Ser
				85					90					95	



1				5				10					15			
Cys	Gly	Cys	Thr	Thr	Cys	Cys	Ala	Thr	Thr	Thr	Cys	Thr	Gly	Cys	Thr	
			20					25					30			
Cys	Thr	Thr	Ala	Cys	Thr	Cys	Cys	Ala	Thr	Gly	Thr	Gly	Cys	Ala	Gly	
		35					40					45				
Ala	Thr	Thr	Thr	Cys	Cys	Ala	Ala	Gly	Gly	Cys	Cys	Thr	Thr	Thr	Cys	
	50					55					60					
Cys	Thr	Gly	Thr	Ala	Thr	Cys	Thr	Thr	Cys	Thr	Ala	Ala	Ala	Gly	Ala	
65					70					75					80	
Gly	Ala	Ala	Ala	Ala	Ala	Thr	Ala	Cys	Ala	Ala	Ala	Ala	Ala	Cys	Thr	
				85				90						95		
Gly	Thr	Thr	Cys	Ala	Gly	Gly	Ala	Cys	Thr	Ala	Cys	Cys	Thr	Gly	Gly	
			100					105					110			
Ala	Ala	Ala	Ala	Gly	Thr	Thr	Cys	Thr	Ala	Cys	Cys	Ala	Ala	Thr	Thr	
		115					120					125				
Ala	Cys	Cys	Ala	Ala	Gly	Cys	Ala	Ala	Cys	Cys	Ala	Gly	Thr	Ala	Thr	
	130					135					140					
Cys	Ala	Gly	Thr	Cys	Thr	Ala	Cys	Ala	Ala	Gly	Gly	Ala	Ala	Gly	Ala	
145					150					155					160	
Ala	Thr	Gly	Gly	Cys	Ala	Cys	Thr	Ala	Ala	Thr	Gly	Thr	Gly	Ala	Thr	
				165				170						175		
Cys	Gly	Thr	Thr	Gly	Ala	Ala	Ala	Ala	Gly	Cys	Thr	Thr	Ala	Ala	Ala	
			180					185					190			
Gly	Ala	Ala	Ala	Thr	Gly	Cys	Ala	Gly	Cys	Gly	Ala	Thr	Thr	Thr	Thr	
	195						200					205				
Thr	Thr	Gly	Gly	Gly	Thr	Thr	Gly	Ala	Ala	Thr	Gly	Thr	Gly	Ala	Cys	
	210					215					220					
Gly	Gly	Gly	Gly	Ala	Ala	Gly	Cys	Cys	Ala	Ala	Ala	Thr	Gly	Ala	Gly	
225					230					235					240	
Gly	Ala	Ala	Ala	Cys	Thr	Cys	Thr	Gly	Gly	Ala	Cys	Ala	Thr	Gly	Ala	
				245				250						255		
Thr	Gly	Ala	Ala	Ala	Ala	Ala	Gly	Cys	Cys	Thr	Cys	Gly	Cys	Thr	Gly	
		260					265						270			
Thr	Gly	Gly	Ala	Gly	Thr	Gly	Cys	Cys	Thr	Gly	Ala	Cys	Ala	Gly	Thr	
	275					280						285				
Gly	Gly	Thr	Gly	Gly	Thr	Thr	Thr	Thr	Ala	Thr	Gly	Thr	Thr	Ala	Ala	
	290					295					300					
Cys	Cys	Cys	Cys	Ala	Gly	Gly	Ala	Ala	Ala	Cys	Cys	Cys	Cys	Ala	Ala	
305					310					315					320	
Gly	Thr	Gly	Gly	Gly	Ala	Ala	Cys	Gly	Cys	Ala	Cys	Thr	Ala	Ala	Cys	
				325				330						335		
Thr	Thr	Gly	Ala	Cys	Cys	Thr	Ala	Cys	Ala	Gly	Gly	Ala	Thr	Thr	Cys	
		340					345						350			
Gly	Ala	Ala	Ala	Cys	Thr	Ala	Thr	Ala	Cys	Cys	Cys	Cys	Ala	Cys	Ala	
	355						360					365				
Gly	Cys	Thr	Gly	Thr	Cys	Ala	Gly	Ala	Gly	Gly	Cys	Thr	Gly	Ala	Gly	
	370					375					380					
Gly	Thr	Ala	Gly	Ala	Ala	Ala	Gly	Ala	Gly	Cys	Thr	Ala	Thr	Cys	Ala	
385					390					395					400	
Ala	Gly	Gly	Ala	Thr	Gly	Cys	Cys	Thr	Thr	Thr	Gly	Ala	Ala	Cys	Thr	
			405					410						415		
Cys	Thr	Gly	Gly	Ala	Gly	Thr	Gly	Thr	Thr	Gly	Cys	Ala	Thr	Cys	Ala	
		420					425						430			
Cys	Cys	Thr	Cys	Thr	Cys	Ala	Thr	Cys	Thr	Thr	Cys	Ala	Cys	Cys	Ala	
	435						440					445				
Gly	Gly	Ala	Thr	Cys	Thr	Cys	Ala	Cys	Ala	Gly	Gly	Gly	Ala	Gly	Ala	
	450					455					460					

Gly	Gly	Cys	Ala	Gly	Ala	Thr	Ala	Thr	Cys	Ala	Ala	Cys	Ala	Thr	Thr
465					470					475					480
Gly	Cys	Thr	Thr	Thr	Thr	Thr	Ala	Cys	Cys	Ala	Ala	Ala	Gly	Ala	Gly
				485					490					495	
Ala	Thr	Cys	Ala	Cys	Gly	Gly	Thr	Gly	Ala	Cys	Ala	Ala	Thr	Thr	Cys
			500					505					510		
Thr	Cys	Cys	Ala	Thr	Thr	Thr	Gly	Ala	Thr	Gly	Gly	Ala	Cys	Cys	Cys
		515					520					525			
Ala	Ala	Thr	Gly	Gly	Ala	Ala	Thr	Cys	Cys	Thr	Thr	Gly	Cys	Thr	Cys
	530					535					540				
Ala	Thr	Gly	Cys	Cys	Thr	Thr	Thr	Cys	Ala	Gly	Cys	Cys	Ala	Gly	Gly
545					550					555					560
Cys	Cys	Ala	Ala	Gly	Gly	Thr	Ala	Thr	Thr	Gly	Gly	Ala	Gly	Gly	Ala
				565					570					575	
Gly	Ala	Thr	Gly	Cys	Thr	Cys	Ala	Thr	Thr	Thr	Thr	Gly	Ala	Thr	Gly
			580					585					590		
Cys	Cys	Gly	Ala	Ala	Gly	Ala	Ala	Ala	Cys	Ala	Thr	Gly	Gly	Ala	Cys
		595					600					605			
Cys	Ala	Ala	Cys	Ala	Cys	Cys	Thr	Cys	Cys	Gly	Cys	Ala	Ala	Ala	Thr
	610					615					620				
Thr	Ala	Cys	Ala	Ala	Cys	Thr	Thr	Gly	Thr	Thr	Thr	Cys	Thr	Thr	Gly
625					630					635					640
Thr	Thr	Gly	Cys	Thr	Gly	Cys	Thr	Cys	Ala	Thr	Gly	Ala	Ala	Thr	Thr
				645					650					655	
Thr	Gly	Gly	Cys	Cys	Ala	Thr	Thr	Cys	Thr	Thr	Thr	Gly	Gly	Gly	Gly
			660					665					670		
Cys	Thr	Cys	Gly	Cys	Thr	Cys	Ala	Cys	Thr	Cys	Cys	Thr	Cys	Thr	Gly
	675						680					685			
Ala	Cys	Cys	Cys	Thr	Gly	Gly	Thr	Gly	Cys	Cys	Thr	Thr	Gly	Ala	Thr
	690					695					700				
Gly	Thr	Ala	Thr	Cys	Cys	Cys	Ala	Ala	Cys	Thr	Ala	Thr	Gly	Cys	Thr
705					710					715					720
Thr	Thr	Cys	Ala	Gly	Gly	Gly	Ala	Ala	Ala	Cys	Cys	Ala	Gly	Cys	Ala
				725					730					735	
Ala	Cys	Thr	Ala	Cys	Thr	Cys	Ala	Cys	Thr	Cys	Cys	Cys	Thr	Cys	Ala
			740					745					750		
Ala	Gly	Ala	Thr	Gly	Ala	Cys	Ala	Thr	Cys	Gly	Ala	Thr	Gly	Gly	Cys
	755						760					765			
Ala	Thr	Thr	Cys	Ala	Gly	Gly	Cys	Cys	Ala	Thr	Cys	Thr	Ala	Thr	Gly
	770					775					780				
Gly	Ala	Cys	Thr	Thr	Thr	Cys	Ala	Ala	Gly	Cys	Ala	Ala	Cys	Cys	Cys
785					790					795					800
Thr	Ala	Thr	Cys	Cys	Ala	Ala	Cys	Cys	Thr	Ala	Cys	Thr	Gly	Gly	Ala
				805					810					815	
Cys	Cys	Ala	Ala	Gly	Cys	Ala	Cys	Ala	Cys	Cys	Cys	Ala	Ala	Ala	Cys
			820					825					830		
Cys	Cys	Thr	Gly	Thr	Gly	Ala	Cys	Cys	Cys	Cys	Ala	Gly	Thr	Thr	Thr
		835					840					845			
Gly	Ala	Cys	Ala	Thr	Thr	Thr	Gly	Ala	Thr	Gly	Cys	Thr	Ala	Thr	Cys
	850					855					860				
Ala	Cys	Cys	Ala	Cys	Ala	Cys	Thr	Cys	Cys	Gly	Thr	Gly	Gly	Ala	Gly
865					870					875					880
Ala	Ala	Ala	Thr	Ala	Cys	Thr	Thr	Thr	Thr	Cys	Thr	Thr	Thr	Ala	Ala
				885					890					895	
Ala	Gly	Ala	Cys	Ala	Gly	Gly	Thr	Ala	Cys	Thr	Thr	Cys	Thr	Gly	Gly
			900					905					910		
Ala	Gly	Ala	Ala	Gly	Gly	Cys	Ala	Thr	Cys	Cys	Thr	Cys	Ala	Gly	Cys



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Ala Gly Ala Thr Ala Thr Gly Gly Cys  
1395 1400

<210> 178  
<211> 471  
<212> PRT  
<213> Homo sapiens

<400> 178  
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Leu Val Gln Ser Lys Asn Arg Ser Leu Ile Asp Asp Lys Ile Arg Glu  
35 40 45  
Met Gln Ala Phe Phe Gly Leu Thr Val Thr Gly Lys Leu Asp Ser Asn  
50 55 60  
Thr Leu Glu Ile Met Lys Thr Pro Arg Cys Gly Val Pro Asp Val Gly  
65 70 75 80  
Gln Tyr Gly Tyr Thr Leu Pro Gly Trp Arg Lys Tyr Asn Leu Thr Tyr  
85 90 95  
Arg Ile Ile Asn Tyr Thr Pro Asp Met Ala Arg Ala Ala Val Asp Glu  
100 105 110  
Ala Ile Gln Glu Gly Leu Glu Val Trp Ser Lys Val Thr Pro Leu Lys  
115 120 125  
Phe Thr Lys Ile Ser Lys Gly Ile Ala Asp Ile Met Ile Ala Phe Arg  
130 135 140  
Thr Arg Val His Gly Arg Cys Pro Arg Tyr Phe Asp Gly Pro Leu Gly  
145 150 155 160  
Val Leu Gly His Ala Phe Pro Pro Gly Pro Gly Leu Gly Gly Asp Thr  
165 170 175  
His Phe Asp Glu Asp Glu Asn Trp Thr Lys Asp Gly Ala Gly Phe Asn  
180 185 190  
Leu Phe Leu Val Ala Ala His Glu Phe Gly His Ala Leu Gly Leu Ser  
195 200 205  
His Ser Asn Asp Gln Thr Ala Leu Met Phe Pro Asn Tyr Val Ser Leu  
210 215 220  
Asp Pro Arg Lys Tyr Pro Leu Ser Gln Asp Asp Ile Asn Gly Ile Gln  
225 230 235 240  
Ser Ile Tyr Gly Gly Leu Pro Lys Val Pro Ala Lys Pro Lys Glu Pro  
245 250 255  
Thr Ile Pro His Ala Cys Asp Pro Asp Leu Thr Phe Asp Ala Ile Thr  
260 265 270  
Thr Phe Arg Arg Glu Val Met Phe Phe Lys Gly Arg His Leu Trp Arg  
275 280 285  
Ile Tyr Tyr Asp Ile Thr Asp Val Glu Phe Glu Leu Ile Ala Ser Phe  
290 295 300  
Trp Pro Ser Leu Pro Ala Asp Leu Gln Ala Ala Tyr Glu Asn Pro Arg  
305 310 315 320  
Asp Lys Ile Leu Val Phe Lys Asp Glu Asn Phe Trp Met Ile Arg Gly  
325 330 335  
Tyr Ala Val Leu Pro Asp Tyr Pro Lys Ser Ile His Thr Leu Gly Phe  
340 345 350  
Pro Gly Arg Val Lys Lys Ile Asp Ala Ala Val Cys Asp Lys Thr Thr

355 360 365  
 Arg Lys Thr Tyr Phe Phe Val Gly Ile Trp Cys Trp Arg Phe Asp Glu  
 370 375 380  
 Met Thr Gln Thr Met Asp Lys Gly Phe Pro Gln Arg Val Val Lys His  
 385 390 395 400  
 Phe Pro Gly Ile Ser Ile Arg Val Asp Ala Ala Phe Gln Tyr Lys Gly  
 405 410 415  
 Phe Phe Phe Phe Ser Arg Gly Ser Lys Gln Phe Glu Tyr Asn Ile Lys  
 420 425 430  
 Thr Lys Asn Ile Thr Arg Ile Met Arg Thr Asn Thr Trp Phe Gln Cys  
 435 440 445  
 Lys Glu Pro Lys Asn Ser Ser Phe Gly Phe Asp Ile Asn Lys Glu Lys  
 450 455 460  
 Ala His Ser Gly Gly Ile Lys  
 465 470

<210> 179  
 <211> 18  
 <212> PRT  
 <213> Homo sapiens

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 Leu Leu

<210> 180  
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 <212> PRT  
 <213> Homo sapiens

<400> 180  
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<210> 181  
 <211> 2467  
 <212> DNA  
 <213> Mus sp.

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 caggcatatc tcaaccagtt ctactctctt gaaatagaag ggagtcattt tgtccaaagc 180  
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 ccagatgtgg ggcaatatgg ctacacactc cctgggtgga gaaaatacag ccttacatac 360  
 agaataatga actatactcc tgatatgaca ccagctgatg tggatgaggc tattcagaaa 420  
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 gcagatataa tgatagcatt caggacagga gtccatggct ggtgtcctcg tcactttgat 540  
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agggaagtta	tgttctttaa	aggcaggtaa	acctattccc	ttgacactcc	agcttcttat	960
aaagatgttt	ttttttttca	aaggatcttc	ggataaacag	tcttctactc	agctagaaaag	1020
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aaaacaatca	aagaaaacac	ccaagggcaa	cctgcagcct	ccacacataa	gcacacatgc	1140
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cacaaactta	agactgaaac	atgctgatgg	acacagggtac	caggacatca	ttgatgaaat	1260
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aatgatgca	gccgtctgtg	atcatgatac	aagaaaaacc	ttcttttttg	ttggcatctg	1560
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cagtgtcaaa	ggaaaagcaa	attcaattgg	cacagtgata	ttacatcata	aaagggttaag	1860
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gagagatgac	ccagtgggta	agtgcactgg	ctgctcttcc	aaaggaccca	ggtttgattc	2040
tcagtaccca	catggcagtc	cacagctctc	tgtaactcca	gacccagggg	aatctgagtc	2100
cctctctggc	ctctgagggc	actgcacaag	catggtgcat	agacatatac	atgcaagcaa	2160
acggctatat	atttaaaata	aaatgaaaaa	gtaaaataat	tgagcccaat	tcttttagcat	2220
caagttctta	ctcctactat	atatcagctg	ggtaaccaat	aaccagttaa	agtatctgat	2280
tcttctaaca	gtgaagtttt	aaatatgaca	aaaatctctc	acttattttg	agtctaatta	2340
atgatttgca	aacttggaag	attaaagcat	gtcttaaaaa	taaacattaa	agacaattct	2400
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aaaaaaa						2467

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 <212> DNA  
 <213> Mus sp.

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caggcatatc	tcaaccagtt	ctactctctt	gaaatagaag	ggagtcatct	tgccaaagc	180
aagaacagga	gtctctttga	tggaaaactt	cgggaaatgc	aggcattttt	cggattgaca	240
gtgactggaa	aactggattc	agacacactt	gcatcatgta	aagtgccccag	gtgtggggta	300
ccagatgtgg	ggcaatatgg	ctacacactc	cctgggtgga	gaaaatacag	ccttacatac	360
agaataatga	actatactcc	tgatatgaca	ccagctgatg	tggatgaggg	tattcagaaa	420
gctctacaag	tttgaggcaa	ggtcactcca	ctgacgttta	ccaggatatc	caagggggtt	480
gcagatataa	tgatagcatt	caggacagga	gtccatggct	ggtgtcctcg	tcactttgat	540
ggtcctctgg	gagtccttgg	ccatgccttt	cctcctgggtc	tgggtctagg	tggtgacact	600
cactttgacg	aagatgaaac	atggatagcc	aaggatgggg	aagggttcaa	cttgtttctt	660
gtggctgctc	atgaatttgg	tcactctctg	gggtgtgccc	actccaatga	tcaaacagcc	720
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aattctgaac	cccacgcctg	tgacccacc	ttgacttttg	atgctatcac	tactttccgc	900
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gctgagtttg	agtttattga	ttccttctgg	ccatctctgc	cagctgatct	tcaagctgcc	1020
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ggatattctg	tcttgcccg	ttaccccaaa	tccatccaca	cactcggatt	tccaagacgt	1140
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ggcatctggt gctggaggta tgatgagatg gcacaagcaa tggacagagg attcccacag 1260
aggataataa agtgcttccc aggaattcgc ctccgtgtgg atgctgtctt ccaacataat 1320
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atcacccaag tgatcaaaac caattcttgg ttctgtgtga acgaaccatt aaacgcatca 1440
ttcaatgtca gtgtcaaagg aaaagcaaat tcaattggca cagtgatatt acatcataaa 1500
aggttaagct tgctcacttt cagtattgtt catgtgtctga caaaaacata caat      1554

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<210> 183  
 <211> 511  
 <212> PRT  
 <213> Mus sp.

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Ala Phe Pro Pro Asp Arg Lys Asp Lys Asn Glu Glu Asn Asn Gln Leu
      20          25          30
Ala Gln Ala Tyr Leu Asn Gln Phe Tyr Ser Leu Glu Ile Glu Gly Ser
      35          40          45
His Phe Val Gln Ser Lys Asn Arg Ser Leu Phe Asp Gly Lys Leu Arg
      50          55          60
Glu Met Gln Ala Phe Phe Gly Leu Thr Val Thr Gly Lys Leu Asp Ser
      65          70          75          80
Asp Thr Leu Ala Ile Met Lys Val Pro Arg Cys Gly Val Pro Asp Val
      85          90          95
Gly Gln Tyr Gly Tyr Thr Leu Pro Gly Trp Arg Lys Tyr Ser Leu Thr
      100          105          110
Tyr Arg Ile Met Asn Tyr Thr Pro Asp Met Thr Pro Ala Asp Val Asp
      115          120          125
Glu Ala Ile Gln Lys Ala Leu Gln Val Trp Ser Lys Val Thr Pro Leu
      130          135          140
Thr Phe Thr Arg Ile Ser Lys Gly Val Ala Asp Ile Met Ile Ala Phe
      145          150          155          160
Arg Thr Gly Val His Gly Trp Cys Pro Arg His Phe Asp Gly Pro Leu
      165          170          175
Gly Val Leu Gly His Ala Phe Pro Pro Gly Leu Gly Leu Gly Gly Asp
      180          185          190
Thr His Phe Asp Glu Asp Glu Thr Trp Ile Ala Lys Asp Gly Glu Gly
      195          200          205
Phe Asn Leu Phe Leu Val Ala Ala His Glu Phe Gly His Ser Leu Gly
      210          215          220
Leu Ser His Ser Asn Asp Gln Thr Ala Leu Met Phe Pro Asn Tyr Ile
      225          230          235          240
Ser Leu Asp Pro Ser Lys Tyr Pro Leu Ser Gln Asp Asp Ile Asp Gly
      245          250          255
Ile Gln Ser Ile Tyr Gly Ser Pro Pro Lys Val Thr Thr Lys Pro Ser
      260          265          270
Gly Asn Ser Glu Pro His Ala Cys Asp Pro Thr Leu Thr Phe Asp Ala
      275          280          285
Ile Thr Thr Phe Arg Arg Glu Val Met Phe Phe Lys Gly Arg His Leu
      290          295          300
Trp Arg Val Tyr Ser Asp Ile Ala Gly Ala Glu Phe Glu Phe Ile Asp
      305          310          315          320
Ser Phe Trp Pro Ser Leu Pro Ala Asp Leu Gln Ala Ala Tyr Glu Ser
      325          330          335
Pro Arg Asp Glu Leu Leu Val Phe Lys Asp Glu Asn Phe Trp Val Ile
      340          345          350

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Arg	Gly	Tyr	Ser	Val	Leu	Pro	Gly	Tyr	Pro	Lys	Ser	Ile	His	Thr	Leu
		355					360					365			
Gly	Phe	Pro	Arg	Arg	Val	Lys	Lys	Ile	Asp	Ala	Ala	Val	Cys	Asp	His
	370					375					380				
Asp	Thr	Arg	Lys	Thr	Phe	Phe	Phe	Val	Gly	Ile	Trp	Cys	Trp	Arg	Tyr
385					390					395					400
Asp	Glu	Met	Ala	Gln	Ala	Met	Asp	Arg	Gly	Phe	Pro	Gln	Arg	Ile	Ile
				405					410					415	
Lys	Cys	Phe	Pro	Gly	Ile	Arg	Leu	Arg	Val	Asp	Ala	Val	Phe	Gln	His
			420					425					430		
Asn	Gly	Phe	Leu	Tyr	Phe	Phe	His	Gly	Ser	Arg	Gln	Phe	Glu	Tyr	Asp
	435						440					445			
Met	Lys	Ala	Lys	Asn	Ile	Thr	Gln	Val	Ile	Lys	Thr	Asn	Ser	Trp	Phe
	450					455					460				
Leu	Cys	Asn	Glu	Pro	Leu	Asn	Ala	Ser	Phe	Asn	Val	Ser	Val	Lys	Gly
465					470					475					480
Lys	Ala	Asn	Ser	Ile	Gly	Thr	Val	Ile	Leu	His	His	Lys	Arg	Leu	Ser
				485					490					495	
Leu	Leu	Thr	Phe	Ser	Ile	Val	His	Val	Leu	Thr	Lys	Thr	Tyr	Asn	
			500					505					510		

<210> 184  
 <211> 17  
 <212> PRT  
 <213> Mus sp.

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<210> 185  
 <211> 494  
 <212> PRT  
 <213> Mus sp.

<400> 185  
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 Phe Val Gln Ser Lys Asn Arg Ser Leu Phe Asp Gly Lys Leu Arg Glu  
 35 40 45  
 Met Gln Ala Phe Phe Gly Leu Thr Val Thr Gly Lys Leu Asp Ser Asp  
 50 55 60  
 Thr Leu Ala Ile Met Lys Val Pro Arg Cys Gly Val Pro Asp Val Gly  
 65 70 75 80  
 Gln Tyr Gly Tyr Thr Leu Pro Gly Trp Arg Lys Tyr Ser Leu Thr Tyr  
 85 90 95  
 Arg Ile Met Asn Tyr Thr Pro Asp Met Thr Pro Ala Asp Val Asp Glu  
 100 105 110  
 Ala Ile Gln Lys Ala Leu Gln Val Trp Ser Lys Val Thr Pro Leu Thr  
 115 120 125  
 Phe Thr Arg Ile Ser Lys Gly Val Ala Asp Ile Met Ile Ala Phe Arg

130		135		140
Thr Gly Val His Gly Trp Cys Pro Arg His Phe Asp Gly Pro Leu Gly				
145		150		155
Val Leu Gly His Ala Phe Pro Pro Gly Leu Gly Leu Gly Gly Asp Thr				160
	165		170	
His Phe Asp Glu Asp Glu Thr Trp Ile Ala Lys Asp Gly Glu Gly Phe				175
	180		185	190
Asn Leu Phe Leu Val Ala Ala His Glu Phe Gly His Ser Leu Gly Leu				
	195		200	205
Ser His Ser Asn Asp Gln Thr Ala Leu Met Phe Pro Asn Tyr Ile Ser				
	210		215	220
Leu Asp Pro Ser Lys Tyr Pro Leu Ser Gln Asp Asp Ile Asp Gly Ile				
225		230		235
Gln Ser Ile Tyr Gly Ser Pro Pro Lys Val Thr Thr Lys Pro Ser Gly				
	245		250	255
Asn Ser Glu Pro His Ala Cys Asp Pro Thr Leu Thr Phe Asp Ala Ile				
	260		265	270
Thr Thr Phe Arg Arg Glu Val Met Phe Phe Lys Gly Arg His Leu Trp				
	275		280	285
Arg Val Tyr Ser Asp Ile Ala Gly Ala Glu Phe Glu Phe Ile Asp Ser				
	290		295	300
Phe Trp Pro Ser Leu Pro Ala Asp Leu Gln Ala Ala Tyr Glu Ser Pro				
305		310		315
Arg Asp Glu Leu Leu Val Phe Lys Asp Glu Asn Phe Trp Val Ile Arg				
	325		330	335
Gly Tyr Ser Val Leu Pro Gly Tyr Pro Lys Ser Ile His Thr Leu Gly				
	340		345	350
Phe Pro Arg Arg Val Lys Lys Ile Asp Ala Ala Val Cys Asp His Asp				
	355		360	365
Thr Arg Lys Thr Phe Phe Phe Val Gly Ile Trp Cys Trp Arg Tyr Asp				
	370		375	380
Glu Met Ala Gln Ala Met Asp Arg Gly Phe Pro Gln Arg Ile Ile Lys				
385		390		395
Cys Phe Pro Gly Ile Arg Leu Arg Val Asp Ala Val Phe Gln His Asn				
	405		410	415
Gly Phe Leu Tyr Phe Phe His Gly Ser Arg Gln Phe Glu Tyr Asp Met				
	420		425	430
Lys Ala Lys Asn Ile Thr Gln Val Ile Lys Thr Asn Ser Trp Phe Leu				
	435		440	445
Cys Asn Glu Pro Leu Asn Ala Ser Phe Asn Val Ser Val Lys Gly Lys				
	450		455	460
Ala Asn Ser Ile Gly Thr Val Ile Leu His His Lys Arg Leu Ser Leu				
465		470		475
Leu Thr Phe Ser Ile Val His Val Leu Thr Lys Thr Tyr Asn				
	485		490	

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<223> Unknown

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<400> 190  
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<211> 2628  
<212> DNA  
<213> Homo sapiens

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tggggccccc acaaccgggc catgcttccc cgggtgccaa tgcgaggtgg agaccttcgg 180  
ccttttcgac agcttcagcc tgactcgggt ggattgtagc ggcctggggc cccacatcat 240  
gccggtgccc atccctctgg acacagccca cttggacctg tcctccaacc ggctggagat 300  
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ccacaacctg ctcaccagca tctcaccac tgcttctcc cgccttcgct acctggagtc 420  
gcttgacctc agccacaatg gcctgacagc cctgccagcc gagagcttca ccagctcacc 480  
cctgagcgac gtgaacctta gccacaacca gctccgggag gtctcagtgt ctgccttcac 540  
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 <212> DNA  
 <213> Homo sapiens

<400> 192						
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 <211> 353  
 <212> PRT  
 <213> Homo sapiens

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Pro	His	Ile	Met	Pro	Val	Pro	Ile	Pro	Leu	Asp	Thr	Ala	His	Leu	Asp
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Leu	Ser	Ser	Asn	Arg	Leu	Glu	Met	Val	Asn	Glu	Ser	Val	Leu	Ala	Gly
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Pro	Gly	Tyr	Thr	Thr	Leu	Ala	Gly	Leu	Asp	Leu	Ser	His	Asn	Leu	Leu
				85					90					95	
Thr	Ser	Ile	Ser	Pro	Thr	Ala	Phe	Ser	Arg	Leu	Arg	Tyr	Leu	Glu	Ser
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Leu	Asp	Leu	Ser	His	Asn	Gly	Leu	Thr	Ala	Leu	Pro	Ala	Glu	Ser	Phe
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Thr	Ser	Ser	Pro	Leu	Ser	Asp	Val	Asn	Leu	Ser	His	Asn	Gln	Leu	Arg
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Glu	Val	Ser	Val	Ser	Ala	Phe	Thr	Thr	His	Ser	Gln	Gly	Arg	Ala	Leu
145					150					155					160
His	Val	Asp	Leu	Ser	His	Asn	Leu	Ile	His	Arg	Leu	Val	Pro	His	Pro
				165					170					175	
Thr	Arg	Ala	Gly	Leu	Pro	Ala	Pro	Thr	Ile	Gln	Ser	Leu	Asn	Leu	Ala
			180					185					190		
Trp	Asn	Arg	Leu	His	Ala	Val	Pro	Asn	Leu	Arg	Asp	Leu	Pro	Leu	Arg
	195						200					205			
Tyr	Leu	Ser	Leu	Asp	Gly	Asn	Pro	Leu	Ala	Val	Ile	Gly	Pro	Gly	Ala
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225					230					235					240
Arg	Leu	Pro	Glu	Leu	Ala	Pro	Ser	Gly	Phe	Arg	Glu	Leu	Pro	Gly	Leu
				245					250					255	
Gln	Val	Leu	Asp	Leu	Ser	Gly	Asn	Pro	Lys	Leu	Asn	Trp	Ala	Gly	Ala
			260					265					270		
Glu	Val	Phe	Ser	Gly	Leu	Ser	Ser	Leu	Gln	Glu	Leu	Asp	Leu	Ser	Gly
	275						280					285			
Thr	Asn	Leu	Val	Pro	Leu	Pro	Glu	Ala	Leu	Leu	Leu	His	Leu	Pro	Ala
	290					295					300				
Leu	Gln	Ser	Val	Ser	Val	Gly	Gln	Asp	Val	Arg	Cys	Arg	Arg	Leu	Val
305					310					315					320
Arg	Glu	Gly	Thr	Tyr	Pro	Arg	Arg	Pro	Gly	Ser	Ser	Pro	Lys	Val	Ala
				325					330					335	
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Leu

<210> 194  
 <211> 16  
 <212> PRT  
 <213> Homo sapiens

<400> 194  
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<210> 195

<211> 337  
 <212> PRT  
 <213> Homo sapiens

<400> 195  
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 Pro His Ile Met Pro Val Pro Ile Pro Leu Asp Thr Ala His Leu Asp  
 35 40 45  
 Leu Ser Ser Asn Arg Leu Glu Met Val Asn Glu Ser Val Leu Ala Gly  
 50 55 60  
 Pro Gly Tyr Thr Thr Leu Ala Gly Leu Asp Leu Ser His Asn Leu Leu  
 65 70 75 80  
 Thr Ser Ile Ser Pro Thr Ala Phe Ser Arg Leu Arg Tyr Leu Glu Ser  
 85 90 95  
 Leu Asp Leu Ser His Asn Gly Leu Thr Ala Leu Pro Ala Glu Ser Phe  
 100 105 110  
 Thr Ser Ser Pro Leu Ser Asp Val Asn Leu Ser His Asn Gln Leu Arg  
 115 120 125  
 Glu Val Ser Val Ser Ala Phe Thr Thr His Ser Gln Gly Arg Ala Leu  
 130 135 140  
 His Val Asp Leu Ser His Asn Leu Ile His Arg Leu Val Pro His Pro  
 145 150 155 160  
 Thr Arg Ala Gly Leu Pro Ala Pro Thr Ile Gln Ser Leu Asn Leu Ala  
 165 170 175  
 Trp Asn Arg Leu His Ala Val Pro Asn Leu Arg Asp Leu Pro Leu Arg  
 180 185 190  
 Tyr Leu Ser Leu Asp Gly Asn Pro Leu Ala Val Ile Gly Pro Gly Ala  
 195 200 205  
 Phe Ala Gly Leu Gly Gly Leu Thr His Leu Ser Leu Ala Ser Leu Gln  
 210 215 220  
 Arg Leu Pro Glu Leu Ala Pro Ser Gly Phe Arg Glu Leu Pro Gly Leu  
 225 230 235 240  
 Gln Val Leu Asp Leu Ser Gly Asn Pro Lys Leu Asn Trp Ala Gly Ala  
 245 250 255  
 Glu Val Phe Ser Gly Leu Ser Ser Leu Gln Glu Leu Asp Leu Ser Gly  
 260 265 270  
 Thr Asn Leu Val Pro Leu Pro Glu Ala Leu Leu Leu His Leu Pro Ala  
 275 280 285  
 Leu Gln Ser Val Ser Val Gly Gln Asp Val Arg Cys Arg Arg Leu Val  
 290 295 300  
 Arg Glu Gly Thr Tyr Pro Arg Arg Pro Gly Ser Ser Pro Lys Val Ala  
 305 310 315 320  
 Leu His Cys Val Asp Thr Arg Glu Ser Ala Ala Arg Gly Pro Thr Ile  
 325 330 335  
 Leu

<210> 196  
 <211> 200  
 <212> PRT  
 <213> Homo sapiens

<400> 196

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			20					25					30		
Pro	His	Ile	Met	Pro	Val	Pro	Ile	Pro	Leu	Asp	Thr	Ala	His	Leu	Asp
		35					40					45			
Leu	Ser	Ser	Asn	Arg	Leu	Glu	Met	Val	Asn	Glu	Ser	Val	Leu	Ala	Gly
	50					55				60					
Pro	Gly	Tyr	Thr	Thr	Leu	Ala	Gly	Leu	Asp	Leu	Ser	His	Asn	Leu	Leu
65					70					75					80
Thr	Ser	Ile	Ser	Pro	Thr	Ala	Phe	Ser	Arg	Leu	Arg	Tyr	Leu	Glu	Ser
				85					90					95	
Leu	Asp	Leu	Ser	His	Asn	Gly	Leu	Thr	Ala	Leu	Pro	Ala	Glu	Ser	Phe
			100					105					110		
Thr	Ser	Ser	Pro	Leu	Ser	Asp	Val	Asn	Leu	Ser	His	Asn	Gln	Leu	Arg
		115					120					125			
Glu	Val	Ser	Val	Ser	Ala	Phe	Thr	Thr	His	Ser	Gln	Gly	Arg	Ala	Leu
	130					135					140				
His	Val	Asp	Leu	Ser	His	Asn	Leu	Ile	His	Arg	Leu	Val	Pro	His	Pro
145					150					155					160
Thr	Arg	Ala	Gly	Leu	Pro	Ala	Pro	Thr	Ile	Gln	Ser	Leu	Asn	Leu	Ala
				165					170					175	
Trp	Asn	Arg	Leu	His	Ala	Val	Pro	Asn	Leu	Arg	Asp	Leu	Pro	Leu	Arg
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Tyr	Leu	Ser	Leu	Asp	Gly	Asn	Pro								
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<210> 197

<211> 23

<212> PRT

<213> Homo sapiens

<400> 197

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<210> 198

<211> 114

<212> PRT

<213> Homo sapiens

<400> 198

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Leu	Gln	Val	Leu	Asp	Leu	Ser	Gly	Asn	Pro	Lys	Leu	Asn	Trp	Ala	Gly
			20					25					30		
Ala	Glu	Val	Phe	Ser	Gly	Leu	Ser	Ser	Leu	Gln	Glu	Leu	Asp	Leu	Ser
		35					40					45			
Gly	Thr	Asn	Leu	Val	Pro	Leu	Pro	Glu	Ala	Leu	Leu	Leu	His	Leu	Pro
	50					55					60				
Ala	Leu	Gln	Ser	Val	Ser	Val	Gly	Gln	Asp	Val	Arg	Cys	Arg	Arg	Leu
65					70					75					80



Val	Arg	Glu	Gly	Thr	Tyr	Pro	Arg	Arg	Pro	Gly	Ser	Ser	Pro	Lys	Val
				85					90					95	
Ala	Leu	His	Cys	Val	Asp	Thr	Arg	Glu	Ser	Ala	Ala	Arg	Gly	Pro	Thr
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Ile	Leu														

<210> 199

<220>

<223> Unknown

<400> 199

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<210> 200

<220>

<223> Unknown

<400> 200

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<210> 201

<211> 3770

<212> DNA

<213> Homo sapiens

<400> 201

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 <211> 2337  
 <212> DNA  
 <213> Homo sapiens

<400> 202						
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 <212> PRT  
 <213> Homo sapiens

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Ala Asn Lys Met Val Asn His Ser Leu His Pro Thr Glu Pro Val Lys
 35          40          45
Val Thr Leu Pro Asp Ala Phe Leu Pro Ala Gln Val Cys Ser Ala Arg
 50          55          60
Ile Gln Glu Asn Gly Ser Leu Ile Thr Ile Leu Val Ile Ala Gly Val
 65          70          75          80
Phe Trp Ile His Arg Leu Ile Lys Phe Ile Tyr Asn Ile Cys Cys Tyr
 85          90          95
Trp Glu Ile His Ser Phe Tyr Leu His Ala Leu Arg Ile Pro Met Ser
100          105          110
Ala Leu Pro Tyr Cys Thr Trp Gln Glu Val Gln Ala Arg Ile Val Gln
115          120          125
Thr Gln Lys Glu His Gln Ile Cys Ile His Lys Arg Glu Leu Thr Glu
130          135          140
Leu Asp Ile Tyr His Arg Ile Leu Arg Phe Gln Asn Tyr Met Val Ala
145          150          155          160
Leu Val Asn Lys Ser Leu Leu Pro Leu Arg Phe Arg Leu Pro Gly Leu
165          170          175
Gly Glu Ala Val Phe Phe Thr Arg Gly Leu Lys Tyr Asn Phe Glu Leu
180          185          190
Ile Leu Phe Trp Gly Pro Gly Ser Leu Phe Leu Asn Glu Trp Ser Leu

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Arg	Phe	Arg	Leu	Pro	Gly	Leu	Gly	Glu	Ala	Val	Phe	Phe	Thr	Arg	Gly
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Leu	Lys	Tyr	Asn	Phe	Glu	Leu	Ile	Leu	Phe	Trp	Gly	Pro	Gly	Ser	Leu
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Phe	Leu	Asn	Glu	Trp	Ser	Leu	Lys	Ala	Glu	Tyr	Lys	Arg	Gly	Gly	Gln
			180					185					190		
Arg	Leu	Glu	Leu	Ala	Gln	Arg	Leu	Ser	Asn	Arg	Ile	Leu	Trp	Ile	Gly
		195					200					205			
Ile	Ala	Asn	Phe	Leu	Leu	Cys	Pro	Leu	Ile	Leu	Ile	Trp	Gln	Ile	Leu
	210					215					220				
Tyr	Ala	Phe	Phe	Ser	Tyr	Ala	Glu	Val	Leu	Lys	Arg	Glu	Pro	Gly	Ala
225					230					235					240
Leu	Gly	Ala	Arg	Cys	Trp	Ser	Leu	Tyr	Gly	Arg	Cys	Tyr	Leu	Arg	His
			245						250					255	
Phe	Asn	Glu	Leu	Glu	His	Glu	Leu	Gln	Ser	Arg	Leu	Asn	Arg	Gly	Tyr
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Lys	Pro	Ala	Ser	Lys	Tyr	Met	Asn	Cys	Phe	Leu	Ser	Pro	Leu	Leu	Thr
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Leu	Ile	Ala	Leu	Thr	Ile	Tyr	Asp	Glu	Asp	Val	Leu	Ala	Val	Glu	His
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Val	Leu	Thr	Thr	Val	Thr	Leu	Leu	Gly	Val	Thr	Val	Thr	Val	Cys	Arg
			325					330						335	
Ser	Phe	Ile	Pro	Asp	Gln	His	Met	Val	Phe	Cys	Pro	Glu	Gln	Leu	Leu
			340					345					350		
Arg	Val	Ile	Leu	Ala	His	Ile	His	Tyr	Met	Pro	Asp	His	Trp	Gln	Gly
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Asn	Ala	His	Arg	Ser	Gln	Thr	Arg	Asp	Glu	Phe	Ala	Gln	Leu	Phe	Gln
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Tyr	Lys	Ala	Val	Phe	Ile	Leu	Glu	Glu	Leu	Leu	Ser	Pro	Ile	Val	Thr
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Pro	Leu	Ile	Leu	Ile	Phe	Cys	Leu	Arg	Pro	Arg	Ala	Leu	Glu	Ile	Ile
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Asp	Phe	Phe	Arg	Asn	Phe	Thr	Val	Glu	Val	Val	Gly	Val	Gly	Asp	Thr
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Cys	Ser	Phe	Ala	Gln	Met	Asp	Val	Arg	Gln	His	Gly	His	Pro	Gln	Trp
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Leu	Ser	Ala	Gly	Gln	Thr	Glu	Ala	Ser	Val	Tyr	Gln	Gln	Ala	Glu	Asp
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Trp	Gln	Pro	Pro	Arg	Glu	Ser	Thr	Ala	Phe	Leu	Gly	Phe	Leu	Lys	Glu
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Gln	Val	Gln	Arg	Asp	Gly	Ala	Ala	Ala	Ser	Leu	Ala	Gln	Gly	Gly	Leu
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Ser	Glu	Pro	Leu	Ser	Leu	Ile	Ala	Asn	Val	Val	Ala	Gly	Ser	Ser	Cys
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Arg	Gly	Pro	Pro	Leu	Pro	Arg	Asp	Leu	Gln	Gly	Ser	Arg	His	Arg	Ala
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Glu	Val	Ala	Ser	Ala	Leu	Arg	Ser	Phe	Ser	Pro	Leu	Gln	Pro	Gly	Gln
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Ala	Pro	Thr	Gly	Arg	Ala	His	Ser	Thr	Met	Thr	Gly	Ser	Gly	Val	Asp
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Ala	Arg	Thr	Ala	Ser	Ser	Gly	Ser	Ser	Val	Trp	Glu	Gly	Gln	Leu	Gln
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Ser	Leu	Val	Leu	Ser	Glu	Tyr	Ala	Ser	Thr	Glu	Met	Ser	Leu	His	Ala
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Arg	His	Val	Trp	His	Arg	Arg	Glu	Ser	Asp	Glu	Ser	Gly	Glu	Ser	Ala
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Pro	Asp	Glu	Gly	Gly	Glu	Gly	Ala	Arg	Ala	Pro	Gln	Ser	Ile	Pro	Arg
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Ser	Ala	Ser	Tyr	Pro	Cys	Ala	Ala	Pro	Arg	Pro	Gly	Ala	Pro	Glu	Thr
		675					680					685			
Thr	Ala	Leu	His	Gly	Gly	Phe	Gln	Arg	Arg	Tyr	Gly	Gly	Ile	Thr	Asp
	690					695					700				
Pro	Gly	Thr	Val	Pro	Arg	Val	Pro	Ser	His	Phe	Ser	Arg	Leu	Pro	Leu
705					710					715					720
Gly	Gly	Trp	Ala	Glu	Asp	Gly	Gln	Ser	Ala	Ser	Arg	His	Pro	Glu	Pro
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 <213> Homo sapiens

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 His Pro Thr Glu Pro Val Lys Val Thr Leu Pro Asp Ala Phe Leu Pro  
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 Ala Gln Val Cys Ser Ala Arg Ile Gln Glu Asn Gly Ser  
 35 40 45

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 <211> 17  
 <212> PRT  
 <213> Homo sapiens

<400> 207  
 Leu Ile Thr Ile Leu Val Ile Ala Gly Val Phe Trp Ile His Arg Leu  
 1 5 10 15  
 Ile

<210> 208  
 <211> 141  
 <212> PRT  
 <213> Homo sapiens

<400> 208  
 Lys Phe Ile Tyr Asn Ile Cys Cys Tyr Trp Glu Ile His Ser Phe Tyr

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Leu	His	Ala	Leu	Arg	Ile	Pro	Met	Ser	Ala	Leu	Pro	Tyr	Cys	Thr	Trp		
			20					25					30				
Gln	Glu	Val	Gln	Ala	Arg	Ile	Val	Gln	Thr	Gln	Lys	Glu	His	Gln	Ile		
		35					40					45					
Cys	Ile	His	Lys	Arg	Glu	Leu	Thr	Glu	Leu	Asp	Ile	Tyr	His	Arg	Ile		
	50					55				60							
Leu	Arg	Phe	Gln	Asn	Tyr	Met	Val	Ala	Leu	Val	Asn	Lys	Ser	Leu	Leu		
65					70				75						80		
Pro	Leu	Arg	Phe	Arg	Leu	Pro	Gly	Leu	Gly	Glu	Ala	Val	Phe	Phe	Thr		
			85					90						95			
Arg	Gly	Leu	Lys	Tyr	Asn	Phe	Glu	Leu	Ile	Leu	Phe	Trp	Gly	Pro	Gly		
		100					105						110				
Ser	Leu	Phe	Leu	Asn	Glu	Trp	Ser	Leu	Lys	Ala	Glu	Tyr	Lys	Arg	Gly		
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Gly	Gln	Arg	Leu	Glu	Leu	Ala	Gln	Arg	Leu	Ser	Asn	Arg					
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 <212> PRT  
 <213> Homo sapiens

<400> 209  
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 Ile Trp Gln Ile Leu Tyr Ala Phe Phe  
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 <211> 66  
 <212> PRT  
 <213> Homo sapiens

<400> 210  
 Ser Tyr Ala Glu Val Leu Lys Arg Glu Pro Gly Ala Leu Gly Ala Arg  
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 Cys Trp Ser Leu Tyr Gly Arg Cys Tyr Leu Arg His Phe Asn Glu Leu  
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 Glu His Glu Leu Gln Ser Arg Leu Asn Arg Gly Tyr Lys Pro Ala Ser  
 35 40 45  
 Lys Tyr Met Asn Cys Phe Leu Ser Pro Leu Leu Thr Leu Leu Ala Lys  
 50 55 60  
 Asn Gly  
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<210> 211  
 <211> 17  
 <212> PRT  
 <213> Homo sapiens

<400> 211  
 Ala Phe Phe Ala Gly Ser Ile Leu Ala Val Leu Ile Ala Leu Thr Ile  
 1 5 10 15



Tyr

<210> 212  
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<212> PRT  
<213> Homo sapiens

<400> 212  
Asp Glu Asp Val Leu Ala Val Glu His  
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<210> 213  
<211> 19  
<212> PRT  
<213> Homo sapiens

<400> 213  
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1 5 10 15  
Ser Phe Ile

<210> 214  
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<212> PRT  
<213> Homo sapiens

<400> 214  
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Arg Ser Gln Thr Arg Asp Glu Phe Ala Gln Leu Phe Gln Tyr Lys Ala  
35 40 45  
Val Phe Ile Leu Glu Glu Leu Leu Ser Pro Ile Val Thr Pro Leu Ile  
50 55 60  
Leu Ile Phe Cys Leu Arg Pro Arg Ala Leu Glu Ile Ile Asp Phe Phe  
65 70 75 80  
Arg Asn Phe Thr Val Glu Val Val Gly Val Gly Asp Thr Cys Ser Phe  
85 90 95  
Ala Gln Met Asp Val Arg Gln His Gly His Pro Gln Trp Leu Ser Ala  
100 105 110  
Gly Gln Thr Glu Ala Ser Val Tyr Gln Gln Ala Glu Asp Gly Lys Thr  
115 120 125  
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Pro Arg Glu Ser Thr Ala Phe Leu Gly Phe Leu Lys Glu Gln Val Gln  
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Leu Ser Leu Ile Ala Asn Val Val Ala Gly Ser Ser Cys Arg Gly Pro



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<400> 216

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		20						25					30		
Ser	Lys	Ser	Pro	Trp	His	His	Ile	Glu	Asn	Leu	Asp	Leu	Phe	Phe	Ser
		35					40					45			
Arg	Val	Tyr	Asn	Leu	His	Gln	Lys	Asn	Gly	Phe	Thr	Cys	Met	Leu	Ile
	50					55					60				
Gly	Glu	Ile	Phe	Glu	Leu	Met	Gln	Phe	Leu	Phe	Val	Val	Ala	Phe	Thr
65						70				75					80
Thr	Phe	Leu	Val	Ser	Cys	Val	Asp	Tyr	Asp	Ile	Leu	Phe	Ala	Asn	Lys
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Met	Val	Asn	His	Ser	Leu	His	Pro	Thr	Glu	Pro	Val	Lys	Val	Thr	Leu
		100						105					110		
Pro	Asp	Ala	Phe	Leu	Pro	Ala	Gln	Val	Cys	Ser	Ala	Arg	Ile	Gln	Glu
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Asn	Gly	Ser	Leu	Ile	Thr	Ile	Leu	Val	Ile	Ala	Gly	Val	Phe	Trp	Ile
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His	Arg	Leu	Ile	Lys	Phe	Ile	Tyr	Asn	Ile	Cys	Cys	Tyr	Trp	Glu	Ile
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His	Ser	Phe	Tyr	Leu	His	Ala	Leu	Arg	Ile	Pro	Met	Ser	Ala	Leu	Pro
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Tyr	Cys	Thr	Trp	Gln	Glu	Val	Gln	Ala	Arg	Ile	Val	Gln	Thr	Gln	Lys
			180					185					190		
Glu	His	Gln	Ile	Cys	Ile	His	Lys	Arg	Glu	Leu	Thr	Glu	Leu	Asp	Ile
	195						200					205			
Tyr	His	Arg	Ile	Leu	Arg	Phe	Gln	Asn	Tyr	Met	Val	Ala	Leu	Val	Asn
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Lys	Ser	Leu	Leu	Pro	Leu	Arg	Phe	Arg	Leu	Pro	Gly	Leu	Gly	Glu	Ala
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Val	Phe	Phe	Thr	Arg	Gly	Leu	Lys	Tyr	Asn	Phe	Glu	Leu	Ile	Leu	Phe



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				725					730					735			
Ala	Ser	Tyr	Pro	Cys	Ala	Ala	Pro	Arg	Pro	Gly	Ala	Pro	Glu	Thr	Thr		
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Gly	Thr	Val	Pro	Arg	Val	Pro	Ser	His	Phe	Ser	Arg	Leu	Pro	Leu	Gly		
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Gly	Trp	Ala	Glu	Asp	Gly	Gln	Ser	Ala	Ser	Arg	His	Pro	Glu	Pro	Val		
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 <212> DNA  
 <213> Homo sapiens

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<210> 223
<211> 265
<212> PRT
<213> Homo sapiens

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<400> 223
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Ser Phe Leu Phe Ser Ala Leu Tyr Ala Ala Phe Ile Phe Gly Gly Arg
35 40 45
His Leu Met Asn Lys Arg Ala Lys Phe Glu Leu Arg Lys Pro Leu Val
50 55 60
Leu Trp Ser Leu Thr Leu Ala Val Phe Ser Ile Phe Gly Ala Leu Arg
65 70 75 80
Thr Gly Ala Tyr Met Val Tyr Ile Leu Met Thr Lys Gly Leu Lys Gln
85 90 95
Ser Val Cys Asp Gln Gly Phe Tyr Asn Gly Pro Val Ser Lys Phe Trp
100 105 110
Ala Tyr Ala Phe Val Leu Ser Lys Ala Pro Glu Leu Gly Asp Thr Ile
115 120 125
Phe Ile Ile Leu Arg Lys Gln Lys Leu Ile Phe Leu His Trp Tyr His
130 135 140
His Ile Thr Val Leu Leu Tyr Ser Trp Tyr Ser Tyr Lys Asp Met Val
145 150 155 160
Ala Gly Gly Gly Trp Phe Met Thr Met Asn Tyr Gly Val His Ala Val
165 170 175
Met Tyr Ser Tyr Tyr Ala Leu Arg Ala Ala Gly Phe Arg Val Ser Arg
180 185 190
Lys Phe Ala Met Phe Ile Thr Leu Ser Gln Ile Thr Gln Met Leu Met
195 200 205
Gly Cys Val Val Asn Tyr Leu Val Phe Cys Trp Met Gln His Asp Gln
210 215 220
Cys His Ser His Phe Gln Asn Ile Phe Trp Ser Ser Leu Met Tyr Leu
225 230 235 240
Ser Tyr Leu Val Leu Phe Cys His Phe Phe Phe Glu Ala Tyr Ile Gly
245 250 255
Lys Met Arg Lys Thr Thr Lys Ala Glu
260 265

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<210> 224

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<211> 46  
 <212> PRT  
 <213> Homo sapiens

<400> 224  
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 Phe Asn Glu Asn Glu Ala Ile Gln Trp Met Gln Glu Asn Trp Lys Lys  
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 Ser Phe Leu Phe Ser Ala Leu Tyr Ala Ala Phe Ile Phe Gly  
 35 40 45

<210> 225  
 <211> 219  
 <212> PRT  
 <213> Homo sapiens

<400> 225  
 Gly Arg His Leu Met Asn Lys Arg Ala Lys Phe Glu Leu Arg Lys Pro  
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 20 25 30  
 Leu Arg Thr Gly Ala Tyr Met Val Tyr Ile Leu Met Thr Lys Gly Leu  
 35 40 45  
 Lys Gln Ser Val Cys Asp Gln Gly Phe Tyr Asn Gly Pro Val Ser Lys  
 50 55 60  
 Phe Trp Ala Tyr Ala Phe Val Leu Ser Lys Ala Pro Glu Leu Gly Asp  
 65 70 75 80  
 Thr Ile Phe Ile Ile Leu Arg Lys Gln Lys Leu Ile Phe Leu His Trp  
 85 90 95  
 Tyr His His Ile Thr Val Leu Leu Tyr Ser Trp Tyr Ser Tyr Lys Asp  
 100 105 110  
 Met Val Ala Gly Gly Gly Trp Phe Met Thr Met Asn Tyr Gly Val His  
 115 120 125  
 Ala Val Met Tyr Ser Tyr Tyr Ala Leu Arg Ala Ala Gly Phe Arg Val  
 130 135 140  
 Ser Arg Lys Phe Ala Met Phe Ile Thr Leu Ser Gln Ile Thr Gln Met  
 145 150 155 160  
 Leu Met Gly Cys Val Val Asn Tyr Leu Val Phe Cys Trp Met Gln His  
 165 170 175  
 Asp Gln Cys His Ser His Phe Gln Asn Ile Phe Trp Ser Ser Leu Met  
 180 185 190  
 Tyr Leu Ser Tyr Leu Val Leu Phe Cys His Phe Phe Phe Glu Ala Tyr  
 195 200 205  
 Ile Gly Lys Met Arg Lys Thr Thr Lys Ala Glu  
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<210> 226  
 <211> 16  
 <212> PRT  
 <213> Homo sapiens

<400> 226  
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 1 5 10 15



<210> 227  
 <211> 17  
 <212> PRT  
 <213> Homo sapiens

<400> 227  
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 1 5 10 15  
 Leu

<210> 228  
 <211> 57  
 <212> PRT  
 <213> Homo sapiens

<400> 228  
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 20 25 30  
 Trp Ala Tyr Ala Phe Val Leu Ser Lys Ala Pro Glu Leu Gly Asp Thr  
 35 40 45  
 Ile Phe Ile Ile Leu Arg Lys Gln Lys  
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<210> 229  
 <211> 17  
 <212> PRT  
 <213> Homo Sapiens

<400> 229  
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 1 5 10 15  
 Trp

<210> 230  
 <211> 11  
 <212> PRT  
 <213> Homo sapiens

<400> 230  
 Tyr Ser Tyr Lys Asp Met Val Ala Gly Gly Gly  
 1 5 10

<210> 231  
 <211> 19  
 <212> PRT  
 <213> Homo sapiens

<400> 231  
 Trp Phe Met Thr Met Asn Tyr Gly Val His Ala Val Met Tyr Ser Tyr  
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 Tyr Ala Leu

<210> 232  
 <211> 10  
 <212> PRT  
 <213> Homo sapiens

<400> 232  
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   1                  5                  10

<210> 233  
 <211> 24  
 <212> PRT  
 <213> Homo sapiens

<400> 233  
 Phe Ala Met Phe Ile Thr Leu Ser Gln Ile Thr Gln Met Leu Met Gly  
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 Cys Val Val Asn Tyr Leu Val Phe  
                   20

<210> 234  
 <211> 14  
 <212> PRT  
 <213> Homo sapiens

<400> 234  
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<210> 235  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 235  
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 His Phe Phe Phe  
                   20

<210> 236  
 <211> 14  
 <212> PRT  
 <213> Homo sapiens

<400> 236  
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<210> 237

<220>

<223> Unknown

<400> 237  
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<210> 238

<211> 813

<212> DNA

<213> Homo sapiens

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<210> 239

<211> 265

<212> PRT

<213> Mus sp.

<400> 239  
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 Phe Asn Glu Asn Glu Ala Ile Gln Trp Met Gln Glu Asn Trp Lys Lys  
 20 25 30  
 Ser Phe Leu Phe Ser Ala Leu Tyr Ala Ala Phe Ile Phe Gly Gly Arg  
 35 40 45  
 His Leu Met Asn Lys Arg Ala Lys Phe Glu Leu Arg Lys Pro Leu Val  
 50 55 60  
 Leu Trp Ser Leu Thr Leu Ala Val Phe Ser Ile Phe Gly Ala Leu Arg  
 65 70 75 80  
 Thr Gly Ala Tyr Met Val Tyr Ile Leu Met Thr Lys Gly Leu Lys Gln  
 85 90 95  
 Ser Val Cys Asp Gln Gly Phe Tyr Asn Gly Pro Val Ser Lys Phe Trp  
 100 105 110  
 Ala Tyr Ala Phe Val Leu Ser Lys Ala Pro Glu Leu Gly Asp Thr Ile  
 115 120 125  
 Phe Ile Ile Leu Arg Lys Gln Lys Leu Ile Phe Leu His Trp Tyr His

130		135		140
His Ile Thr Val Leu	Leu Tyr Ser Trp Tyr Ser	Tyr Lys Asp Met Val		
145	150	155	160	
Ala Gly Gly Gly Trp	Phe Met Thr Met Asn Tyr Gly	Val His Ala Val		
	165	170	175	
Met Tyr Ser Tyr Tyr	Ala Leu Arg Ala Ala Gly	Phe Arg Val Ser Arg		
	180	185	190	
Lys Phe Ala Met Phe	Ile Thr Leu Ser Gln Ile Thr	Gln Met Leu Met		
	195	200	205	
Gly Cys Val Val Asn	Tyr Leu Val Phe Cys Trp Met	Gln His Asp Gln		
	210	215	220	
Cys His Ser His Phe	Gln Asn Ile Phe Trp Ser Ser	Leu Met Tyr Leu		
225	230	235	240	
Ser Tyr Leu Val Leu	Phe Cys His Phe Phe	Glu Ala Tyr Ile Gly		
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	260	265		

<210> 240

<220>

<223> Unknown

<400> 240

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<210> 241

<211> 2032

<212> DNA

<213> Mus sp.

<400> 241

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<210> 242

<211> 522

<212> DNA

<213> Mus sp.

<400> 242

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<210> 243

<211> 174

<212> PRT

<213> Mus sp.

<400> 243

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Asp Thr Ile Phe Ile Ile Leu Arg Lys Gln Lys Leu Ile Phe Leu His
 35          40          45
Trp Tyr His His Ile Thr Val Leu Leu Tyr Ser Trp Tyr Ser Tyr Lys
 50          55          60
Asp Met Val Ala Gly Gly Gly Trp Phe Met Thr Met Asn Tyr Gly Val
 65          70          75          80
His Ala Val Met Tyr Ser Tyr Tyr Ala Leu Arg Ala Ala Gly Phe Arg
 85          90          95
Val Ser Arg Lys Phe Ala Met Phe Ile Thr Leu Ser Gln Ile Thr Gln
100          105          110
Met Leu Met Gly Cys Val Ile Asn Tyr Leu Val Phe Asn Trp Met Gln
115          120          125
His Asp Asn Asp Gln Cys Tyr Ser His Phe Gln Asn Ile Phe Trp Ser
130          135          140
Ser Leu Met Tyr Leu Ser Tyr Leu Val Leu Phe Cys His Phe Phe Phe
145          150          155          160
Glu Ala Tyr Ile Gly Lys Val Lys Lys Ala Thr Lys Ala Glu
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<210> 244  
 <211> 49  
 <212> PRT  
 <213> Mus sp.

<400> 244  
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 Lys Phe Trp Ala Tyr Ala Phe Val Leu Ser Lys Ala Pro Glu Leu Gly  
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 Asp Thr Ile Phe Ile Ile Leu Arg Lys Gln Lys Leu Ile Phe Leu His  
 35 40 45  
 Trp

<210> 245  
 <211> 17  
 <212> PRT  
 <213> Mus sp.

<400> 245  
 Tyr His His Ile Thr Val Leu Leu Tyr Ser Trp Tyr Ser Tyr Lys Asp  
 1 5 10 15  
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<210> 246  
 <211> 11  
 <212> PRT  
 <213> Mus sp.

<400> 246  
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 1 5 10

<210> 247  
 <211> 19  
 <212> PRT  
 <213> Mus sp.

<400> 247  
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 Gly Phe Arg

<210> 248  
 <211> 10  
 <212> PRT  
 <213> Mus sp.

<400> 248

Val Ser Arg Lys Phe Ala Met Phe Ile Thr  
 1 5 10

<210> 249  
 <211> 24  
 <212> PRT  
 <213> Mus sp.

<400> 249  
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<210> 250  
 <211> 16  
 <212> PRT  
 <213> Mus sp.

<400> 250  
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 1 5 10 15

<210> 251  
 <211> 974  
 <212> DNA  
 <213> Rattus sp.

<400> 251  
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 cgggctgcgg gtttccgggt ctcccgggagg tttgccatgt tcatcacgtt gtcccagatc 240  
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 aatgaccagt gctactccca ctttcagaac atcttctggg cctcactcat gtacctcagc 360  
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<210> 252  
 <211> 432  
 <212> DNA  
 <213> Rattus sp.

<400> 252  
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cgggctgcgg gtttccgggt ctcccgaag ttgccaatgt tcatcacgtt gtcccagatc 240
actcagatgc tgatgggctg tgtcattaac tacctgggtc tcaactggat gcagcatgac 300
aatgaccagt gctactccca ctttcagaac atcttctggt cctcactcat gtacctcagc 360
taccttctgc tcttctgcca tttcttcttt gaggcctaca tcggcaaagt gaagaaaagc 420
acgaaggccg ag 432

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<210> 253

<211> 144

<212> PRT

<213> Rattus sp.

<400> 253

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Leu Gly Asp Thr Ile Phe Ile Ile Leu Arg Lys Gln Lys Leu Ile Phe
 1          5          10          15
Leu His Trp Tyr His His Ile Thr Val Leu Leu Tyr Ser Trp Tyr Ser
 20          25          30
Tyr Lys Asp Met Val Ala Gly Gly Gly Trp Phe Met Thr Met Asn Tyr
 35          40          45
Gly Val His Ala Val Met Tyr Ser Tyr Tyr Ala Leu Arg Ala Ala Gly
 50          55          60
Phe Arg Val Ser Arg Lys Phe Ala Met Phe Ile Thr Leu Ser Gln Ile
 65          70          75          80
Thr Gln Met Leu Met Gly Cys Val Ile Asn Tyr Leu Val Phe Asn Trp
 85          90          95
Met Gln His Asp Asn Asp Gln Cys Tyr Ser His Phe Gln Asn Ile Phe
100          105          110
Trp Ser Ser Leu Met Tyr Leu Ser Tyr Leu Leu Leu Phe Cys His Phe
115          120          125
Phe Phe Glu Ala Tyr Ile Gly Lys Val Lys Lys Ala Thr Lys Ala Glu
130          135          140

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<223> Unknown

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<223> Unknown

<400> 270

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<210> 271  
 <211> 2895  
 <212> DNA  
 <213> Homo sapiens

<400> 271  
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 cgggtgccacc catgtcgcac tagagcagaa gaggtgagt cctgaactgc aacctgcaca 180  
 gagctgctct gtactgtccc tgggtggtcg cgccatgacc tgggtggtgc tgctggggac 240  
 actgctctgc atgtgcgcg ttgggttagg caccgccgac tccgagggtt tcccgccccg 300  
 tgcgtccac aactgcccct acaaatgtat ctgcgtgcc gacctgctaa gctgcactgg 360  
 cctagggctg caggacgtgc cagccgagtt acctgccgt actgcggacc tcgacctgag 420  
 ccacaacgcg ctccagcgcc tgcgccccgg ctggttggcg cccctcttcc agctgcgcgc 480  
 cctgcaccta gaccacaacg aactagatgc gctgggtcgc ggcgtcttcg tcaacgccag 540  
 cggcctgagg ctgctcgatc tatcatctaa caggttgcgg gcgcttggcc gccacgacct 600  
 cgacgggctg ggggcgctgg agaagctgct tctgttcaat aaccgcttgg tgcacttggg 660  
 cgagcatgcc ttccacggcc tgcgcgcgct cagccatctc tacctgggct gcaacgaact 720  
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 ctactgctc ccaactgcagg ggggcaggga aggggggtct gggagccctt catgtgtggg 2760  
 ggccgagctg gggggcccca tggccatcct ggacctcgct gctccagagt ttaataaagg 2820  
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 <211> 1365  
 <212> DNA  
 <213> Homo sapiens

<400> 272  
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 gctgccgacc tgctaagctg cactggccta gggctgcagg acgtgccagc cgagttacct 180  
 gccgctactg cggacctcga cctgagccac aacgcgctcc agcgccctgcg ccccggtctg 240  
 ttggcgcccc tcttccagct gcgcgccttg cacctagacc acaacgaact agatgcgctg 300  
 ggtcgcggcg tcttcgtcaa cgccagcggc ctgaggctgc tcgatctatc atctaacacg 360  
 ttgcggggcg ttggccgcca cgacctcgac gggctggggg cgctggagaa gctgcttctg 420  
 ttcaataacc gcttggtgca cttggacgag catgccttcc acggcctgcg cgcgctcagc 480  
 catctctacc tggggtgcaa cgaactcgcc tcgtttctct tcgaccacct gcacggtctg 540  
 agcgccaccc acctgcttac tctggacctc tctccaacc ggctgggaca catctccgta 600  
 cctgagctgg ccgcgctgcc ggccttcttc aagaacggcc tctacttgca caacaaccct 660  
 ttgccttgcg actgccgcct ctaccacctg ctacagcgct ggcaccagcg gggcctgagc 720  
 gccgtgcgcg actttgcgcy cgagtacgta tgcttggcct tcaaggtagc cgcgtcccgc 780  
 gtgcgcttct tccagcacag ccgcgtcttt gagaactgct cgctggcccc agctcttggc 840  
 ctaaagcggc cggaagagca cctgtacgcy ctggtgggtc ggtccctgag gctttactgc 900  
 aacaccagcg tcccggccat gcgcattgcc tgggtttcgc cgcagcagga gcttctcagg 960  
 gcgccaggat cccgcgatgg cagcatcgcy gtgctggcgc acggcagctt ggccataggc 1020  
 aacgtacagg agcagcatgc gggactcttc gtgtgcctgg ccactgggcc ccgcctgcac 1080  
 cacaaccaga cgcacgagta caacgtgagc gtgcactttc cgcgcccaga gcccagggt 1140  
 ttcaacacag gcttcaccac actgctgggc tgtgccgtgg gccttgctgct cgtgctgctc 1200  
 tacctgttcg cccaccctg ccgctgctgc cgccgtgcct gcccgtgcc gccgctggcc 1260  
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 ccgccagacg caccagccc gcaaggccaa gcgtccacaa gcacg 1365

<210> 273  
 <211> 455  
 <212> PRT  
 <213> Homo sapiens

<400> 273  
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 Asn Cys Pro Tyr Lys Cys Ile Cys Ala Ala Asp Leu Leu Ser Cys Thr  
 35 40 45  
 Gly Leu Gly Leu Gln Asp Val Pro Ala Glu Leu Pro Ala Ala Thr Ala  
 50 55 60  
 Asp Leu Asp Leu Ser His Asn Ala Leu Gln Arg Leu Arg Pro Gly Trp  
 65 70 75 80  
 Leu Ala Pro Leu Phe Gln Leu Arg Ala Leu His Leu Asp His Asn Glu  
 85 90 95  
 Leu Asp Ala Leu Gly Arg Gly Val Phe Val Asn Ala Ser Gly Leu Arg  
 100 105 110  
 Leu Leu Asp Leu Ser Ser Asn Thr Leu Arg Ala Leu Gly Arg His Asp  
 115 120 125  
 Leu Asp Gly Leu Gly Ala Leu Glu Lys Leu Leu Leu Phe Asn Asn Arg  
 130 135 140  
 Leu Val His Leu Asp Glu His Ala Phe His Gly Leu Arg Ala Leu Ser  
 145 150 155 160

His Leu Tyr Leu Gly Cys Asn Glu Leu Ala Ser Phe Ser Phe Asp His  
 165 170 175  
 Leu His Gly Leu Ser Ala Thr His Leu Leu Thr Leu Asp Leu Ser Ser  
 180 185 190  
 Asn Arg Leu Gly His Ile Ser Val Pro Glu Leu Ala Ala Leu Pro Ala  
 195 200 205  
 Phe Leu Lys Asn Gly Leu Tyr Leu His Asn Asn Pro Leu Pro Cys Asp  
 210 215 220  
 Cys Arg Leu Tyr His Leu Leu Gln Arg Trp His Gln Arg Gly Leu Ser  
 225 230 235 240  
 Ala Val Arg Asp Phe Ala Arg Glu Tyr Val Cys Leu Ala Phe Lys Val  
 245 250 255  
 Pro Ala Ser Arg Val Arg Phe Phe Gln His Ser Arg Val Phe Glu Asn  
 260 265 270  
 Cys Ser Ser Ala Pro Ala Leu Gly Leu Lys Arg Pro Glu Glu His Leu  
 275 280 285  
 Tyr Ala Leu Val Gly Arg Ser Leu Arg Leu Tyr Cys Asn Thr Ser Val  
 290 295 300  
 Pro Ala Met Arg Ile Ala Trp Val Ser Pro Gln Gln Glu Leu Leu Arg  
 305 310 315 320  
 Ala Pro Gly Ser Arg Asp Gly Ser Ile Ala Val Leu Ala Asp Gly Ser  
 325 330 335  
 Leu Ala Ile Gly Asn Val Gln Glu Gln His Ala Gly Leu Phe Val Cys  
 340 345 350  
 Leu Ala Thr Gly Pro Arg Leu His His Asn Gln Thr His Glu Tyr Asn  
 355 360 365  
 Val Ser Val His Phe Pro Arg Pro Glu Pro Glu Ala Phe Asn Thr Gly  
 370 375 380  
 Phe Thr Thr Leu Leu Gly Cys Ala Val Gly Leu Val Leu Val Leu Leu  
 385 390 395 400  
 Tyr Leu Phe Ala Pro Pro Cys Arg Cys Cys Arg Arg Ala Cys Pro Leu  
 405 410 415  
 Pro Pro Leu Ala Pro Asn Thr Gln Pro Ala Pro Arg Ala Glu Pro His  
 420 425 430  
 Lys Ser Ser Val Leu Ser Thr Thr Pro Pro Asp Ala Pro Ser Pro Gln  
 435 440 445  
 Gly Gln Ala Ser Thr Ser Thr  
 450 455

<210> 274  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 274  
 Met Thr Trp Leu Val Leu Leu Gly Thr Leu Leu Cys Met Leu Arg Val  
 1 5 10 15  
 Gly Leu Gly Thr  
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<210> 275  
 <211> 435  
 <212> PRT

<213> Homo sapiens

<400> 275

Pro	Asp	Ser	Glu	Gly	Phe	Pro	Pro	Arg	Ala	Leu	His	Asn	Cys	Pro	Tyr	1	5	10	15
Lys	Cys	Ile	Cys	Ala	Ala	Asp	Leu	Leu	Ser	Cys	Thr	Gly	Leu	Gly	Leu	20	25	30	
Gln	Asp	Val	Pro	Ala	Glu	Leu	Pro	Ala	Ala	Thr	Ala	Asp	Leu	Asp	Leu	35	40	45	
Ser	His	Asn	Ala	Leu	Gln	Arg	Leu	Arg	Pro	Gly	Trp	Leu	Ala	Pro	Leu	50	55	60	
Phe	Gln	Leu	Arg	Ala	Leu	His	Leu	Asp	His	Asn	Glu	Leu	Asp	Ala	Leu	65	70	75	
Gly	Arg	Gly	Val	Phe	Val	Asn	Ala	Ser	Gly	Leu	Arg	Leu	Leu	Asp	Leu	85	90	95	
Ser	Ser	Asn	Thr	Leu	Arg	Ala	Leu	Gly	Arg	His	Asp	Leu	Asp	Gly	Leu	100	105	110	
Gly	Ala	Leu	Glu	Lys	Leu	Leu	Leu	Phe	Asn	Asn	Arg	Leu	Val	His	Leu	115	120	125	
Asp	Glu	His	Ala	Phe	His	Gly	Leu	Arg	Ala	Leu	Ser	His	Leu	Tyr	Leu	130	135	140	
Gly	Cys	Asn	Glu	Leu	Ala	Ser	Phe	Ser	Phe	Asp	His	Leu	His	Gly	Leu	145	150	155	
Ser	Ala	Thr	His	Leu	Leu	Thr	Leu	Asp	Leu	Ser	Ser	Asn	Arg	Leu	Gly	165	170	175	
His	Ile	Ser	Val	Pro	Glu	Leu	Ala	Ala	Leu	Pro	Ala	Phe	Leu	Lys	Asn	180	185	190	
Gly	Leu	Tyr	Leu	His	Asn	Asn	Pro	Leu	Pro	Cys	Asp	Cys	Arg	Leu	Tyr	195	200	205	
His	Leu	Leu	Gln	Arg	Trp	His	Gln	Arg	Gly	Leu	Ser	Ala	Val	Arg	Asp	210	215	220	
Phe	Ala	Arg	Glu	Tyr	Val	Cys	Leu	Ala	Phe	Lys	Val	Pro	Ala	Ser	Arg	225	230	235	
Val	Arg	Phe	Phe	Gln	His	Ser	Arg	Val	Phe	Glu	Asn	Cys	Ser	Ser	Ala	245	250	255	
Pro	Ala	Leu	Gly	Leu	Lys	Arg	Pro	Glu	Glu	His	Leu	Tyr	Ala	Leu	Val	260	265	270	
Gly	Arg	Ser	Leu	Arg	Leu	Tyr	Cys	Asn	Thr	Ser	Val	Pro	Ala	Met	Arg	275	280	285	
Ile	Ala	Trp	Val	Ser	Pro	Gln	Gln	Glu	Leu	Leu	Arg	Ala	Pro	Gly	Ser	290	295	300	
Arg	Asp	Gly	Ser	Ile	Ala	Val	Leu	Ala	Asp	Gly	Ser	Leu	Ala	Ile	Gly	305	310	315	
Asn	Val	Gln	Glu	Gln	His	Ala	Gly	Leu	Phe	Val	Cys	Leu	Ala	Thr	Gly	325	330	335	
Pro	Arg	Leu	His	His	Asn	Gln	Thr	His	Glu	Tyr	Asn	Val	Ser	Val	His	340	345	350	
Phe	Pro	Arg	Pro	Glu	Pro	Glu	Ala	Phe	Asn	Thr	Gly	Phe	Thr	Thr	Leu	355	360	365	
Leu	Gly	Cys	Ala	Val	Gly	Leu	Val	Leu	Val	Leu	Leu	Tyr	Leu	Phe	Ala	370	375	380	
Pro	Pro	Cys	Arg	Cys	Cys	Arg	Arg	Ala	Cys	Pro	Leu	Pro	Pro	Leu	Ala	385	390	395	
Pro	Asn	Thr	Gln	Pro	Ala	Pro	Arg	Ala	Glu	Pro	His	Lys	Ser	Ser	Val	405	410	415	
Leu	Ser	Thr	Thr	Pro	Pro	Asp	Ala	Pro	Ser	Pro	Gln	Gly	Gln	Ala	Ser	420	425	430	

Thr Ser Thr  
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<210> 276  
<211> 363  
<212> PRT  
<213> Homo sapiens

<400> 276  
Pro Asp Ser Glu Gly Phe Pro Pro Arg Ala Leu His Asn Cys Pro Tyr  
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Lys Cys Ile Cys Ala Ala Asp Leu Leu Ser Cys Thr Gly Leu Gly Leu  
20 25 30  
Gln Asp Val Pro Ala Glu Leu Pro Ala Ala Thr Ala Asp Leu Asp Leu  
35 40 45  
Ser His Asn Ala Leu Gln Arg Leu Arg Pro Gly Trp Leu Ala Pro Leu  
50 55 60  
Phe Gln Leu Arg Ala Leu His Leu Asp His Asn Glu Leu Asp Ala Leu  
65 70 75 80  
Gly Arg Gly Val Phe Val Asn Ala Ser Gly Leu Arg Leu Leu Asp Leu  
85 90 95  
Ser Ser Asn Thr Leu Arg Ala Leu Gly Arg His Asp Leu Asp Gly Leu  
100 105 110  
Gly Ala Leu Glu Lys Leu Leu Leu Phe Asn Asn Arg Leu Val His Leu  
115 120 125  
Asp Glu His Ala Phe His Gly Leu Arg Ala Leu Ser His Leu Tyr Leu  
130 135 140  
Gly Cys Asn Glu Leu Ala Ser Phe Ser Phe Asp His Leu His Gly Leu  
145 150 155 160  
Ser Ala Thr His Leu Leu Thr Leu Asp Leu Ser Ser Asn Arg Leu Gly  
165 170 175  
His Ile Ser Val Pro Glu Leu Ala Ala Leu Pro Ala Phe Leu Lys Asn  
180 185 190  
Gly Leu Tyr Leu His Asn Asn Pro Leu Pro Cys Asp Cys Arg Leu Tyr  
195 200 205  
His Leu Leu Gln Arg Trp His Gln Arg Gly Leu Ser Ala Val Arg Asp  
210 215 220  
Phe Ala Arg Glu Tyr Val Cys Leu Ala Phe Lys Val Pro Ala Ser Arg  
225 230 235 240  
Val Arg Phe Phe Gln His Ser Arg Val Phe Glu Asn Cys Ser Ser Ala  
245 250 255  
Pro Ala Leu Gly Leu Lys Arg Pro Glu Glu His Leu Tyr Ala Leu Val  
260 265 270  
Gly Arg Ser Leu Arg Leu Tyr Cys Asn Thr Ser Val Pro Ala Met Arg  
275 280 285  
Ile Ala Trp Val Ser Pro Gln Gln Glu Leu Leu Arg Ala Pro Gly Ser  
290 295 300  
Arg Asp Gly Ser Ile Ala Val Leu Ala Asp Gly Ser Leu Ala Ile Gly  
305 310 315 320  
Asn Val Gln Glu Gln His Ala Gly Leu Phe Val Cys Leu Ala Thr Gly  
325 330 335  
Pro Arg Leu His His Asn Gln Thr His Glu Tyr Asn Val Ser Val His  
340 345 350  
Phe Pro Arg Pro Glu Pro Glu Ala Phe Asn Thr  
355 360

<210> 277  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 277  
 Gly Phe Thr Thr Leu Leu Gly Cys Ala Val Gly Leu Val Leu Val Leu  
 1 5 10 15  
 Leu Tyr Leu Phe  
 20

<210> 278  
 <211> 52  
 <212> PRT  
 <213> Homo sapiens

<400> 278  
 Ala Pro Pro Cys Arg Cys Cys Arg Arg Ala Cys Pro Leu Pro Pro Leu  
 1 5 10 15  
 Ala Pro Asn Thr Gln Pro Ala Pro Arg Ala Glu Pro His Lys Ser Ser  
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 Val Leu Ser Thr Thr Pro Pro Asp Ala Pro Ser Pro Gln Gly Gln Ala  
 35 40 45  
 Ser Thr Ser Thr  
 50

<210> 279  
 <211> 1518  
 <212> DNA  
 <213> Homo sapiens

<400> 279  
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 ctgttccctgg ccgggctcat gcttggtacc ggctccatca acacgctctc ggcaaaatgg 120  
 gcggacaatt tcatggccga gggctgtgga gggagcaagg agcacagctt ccagcatccc 180  
 ttccctccagg cagtgggcat gttcctggga gaattctcct gcctggctgc cttctacctc 240  
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 cctcttcttt tctgcccc agcgtctgtg gacatgacag ggaccagcct catgtatgtg 360  
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 agcgcaccca cccgcattgt gttggacagc ttgcgcaccg ttgtcatctg ggcactgagc 960  
 ctggcactgg gctgggaggg cttccatgca ctgcagatcc ttggcttcct catactcctt 1020  
 ataggcactg ccctctacaa tgggctacac cgctccgctgc tgggcccgcct gtccaggggc 1080  
 cggccccctg cagaggagag cgagcaggag agactgctgg gtggcaccgc cactcccatc 1140  
 aatgatgcca gctgaggttc cctggaggct tctactgcca cccgggtgct cttctcctc 1200  
 gagactgagg ccacacaggc tgggtgggcc cgaatgcct atccccaaagg cctcacctg 1260



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tccccctccct gcagaaccccc cagggcagct gctgccacag aagataacaa caccacaagtc 1320
ctcttttttct cactaccacc tgcaggggtgg tgttaccacag cccccacaag cctgagtgc 1380
gtggcagacc tcagctctct ggacccctcc tacagcacta gagctaaatc atgaagttga 1440
attgtaggaa tttaccaccg tagtgtatct gaatcataaa ctagattatc ataaaaaaaa 1500
aaaaaaaaagg gcggccgc

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<210> 280
<211> 1113
<212> DNA
<213> Homo sapiens

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<400> 280
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gagcacagct tccagcatcc cttcctccag gcagtgggca tgcttctggg agaattctcc 180
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<210> 281
<211> 371
<212> PRT
<213> Homo sapiens

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<400> 281
Met Ala Trp Thr Lys Tyr Gln Leu Phe Leu Ala Gly Leu Met Leu Val
1 5 10 15
Thr Gly Ser Ile Asn Thr Leu Ser Ala Lys Trp Ala Asp Asn Phe Met
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Ala Glu Gly Cys Gly Gly Ser Lys Glu His Ser Phe Gln His Pro Phe
35 40 45
Leu Gln Ala Val Gly Met Phe Leu Gly Glu Phe Ser Cys Leu Ala Ala
50 55 60
Phe Tyr Leu Leu Arg Cys Arg Ala Ala Gly Gln Ser Asp Ser Ser Val
65 70 75 80
Asp Pro Gln Gln Pro Phe Asn Pro Leu Leu Phe Leu Pro Pro Ala Leu
85 90 95
Cys Asp Met Thr Gly Thr Ser Leu Met Tyr Val Ala Leu Asn Met Thr
100 105 110
Ser Ala Ser Ser Phe Gln Met Leu Arg Gly Ala Val Ile Ile Phe Thr
115 120 125
Gly Leu Phe Ser Val Ala Phe Leu Gly Arg Arg Leu Val Leu Ser Gln
130 135 140
Trp Leu Gly Ile Leu Ala Thr Ile Ala Gly Leu Val Val Val Gly Leu

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145					150					155				160
Ala	Asp	Leu	Leu	Ser	Lys	His	Asp	Ser	Gln	His	Lys	Leu	Ser	Glu Val
				165					170					175
Ile	Thr	Gly	Asp	Leu	Leu	Ile	Ile	Met	Ala	Gln	Ile	Ile	Val	Ala Ile
			180					185					190	
Gln	Met	Val	Leu	Glu	Glu	Lys	Phe	Val	Tyr	Lys	His	Asn	Val	His Pro
			195				200					205		
Leu	Arg	Ala	Val	Gly	Thr	Glu	Gly	Leu	Phe	Gly	Phe	Val	Ile	Leu Ser
			210			215					220			
Leu	Leu	Leu	Val	Pro	Met	Tyr	Tyr	Ile	Pro	Ala	Gly	Ser	Phe	Ser Gly
225					230					235				240
Asn	Pro	Arg	Gly	Thr	Leu	Glu	Asp	Ala	Leu	Asp	Ala	Phe	Cys	Gln Val
				245					250					255
Gly	Gln	Gln	Pro	Leu	Ile	Ala	Val	Ala	Leu	Leu	Gly	Asn	Ile	Ser Ser
			260					265					270	
Ile	Ala	Phe	Phe	Asn	Phe	Ala	Gly	Ile	Ser	Val	Thr	Lys	Glu	Leu Ser
			275				280					285		
Ala	Thr	Thr	Arg	Met	Val	Leu	Asp	Ser	Leu	Arg	Thr	Val	Val	Ile Trp
			290			295					300			
Ala	Leu	Ser	Leu	Ala	Leu	Gly	Trp	Glu	Ala	Phe	His	Ala	Leu	Gln Ile
305					310					315				320
Leu	Gly	Phe	Leu	Ile	Leu	Leu	Ile	Gly	Thr	Ala	Leu	Tyr	Asn	Gly Leu
				325					330					335
His	Arg	Pro	Leu	Leu	Gly	Arg	Leu	Ser	Arg	Gly	Arg	Pro	Leu	Ala Glu
			340				345						350	
Glu	Ser	Glu	Gln	Glu	Arg	Leu	Leu	Gly	Gly	Thr	Arg	Thr	Pro	Ile Asn
		355				360						365		
Asp	Ala	Ser												
		370												

<210> 282  
 <211> 18  
 <212> PRT  
 <213> Homo sapiens

<400> 282  
 Met Ala Trp Thr Lys Tyr Gln Leu Phe Leu Ala Gly Leu Met Leu Val  
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 Thr Gly

<210> 283  
 <211> 353  
 <212> PRT  
 <213> Homo sapiens

<400> 283  
 Ser Ile Asn Thr Leu Ser Ala Lys Trp Ala Asp Asn Phe Met Ala Glu  
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 Ala Val Gly Met Phe Leu Gly Glu Phe Ser Cys Leu Ala Ala Phe Tyr  
 35 40 45  
 Leu Leu Arg Cys Arg Ala Ala Gly Gln Ser Asp Ser Ser Val Asp Pro  
 50 55 60

Gln Gln Pro Phe Asn Pro Leu Leu Phe Leu Pro Pro Ala Leu Cys Asp  
 65 70 75 80  
 Met Thr Gly Thr Ser Leu Met Tyr Val Ala Leu Asn Met Thr Ser Ala  
 85 90 95  
 Ser Ser Phe Gln Met Leu Arg Gly Ala Val Ile Ile Phe Thr Gly Leu  
 100 105 110  
 Phe Ser Val Ala Phe Leu Gly Arg Arg Leu Val Leu Ser Gln Trp Leu  
 115 120 125  
 Gly Ile Leu Ala Thr Ile Ala Gly Leu Val Val Val Gly Leu Ala Asp  
 130 135 140  
 Leu Leu Ser Lys His Asp Ser Gln His Lys Leu Ser Glu Val Ile Thr  
 145 150 155 160  
 Gly Asp Leu Leu Ile Ile Met Ala Gln Ile Ile Val Ala Ile Gln Met  
 165 170 175  
 Val Leu Glu Glu Lys Phe Val Tyr Lys His Asn Val His Pro Leu Arg  
 180 185 190  
 Ala Val Gly Thr Glu Gly Leu Phe Gly Phe Val Ile Leu Ser Leu Leu  
 195 200 205  
 Leu Val Pro Met Tyr Tyr Ile Pro Ala Gly Ser Phe Ser Gly Asn Pro  
 210 215 220  
 Arg Gly Thr Leu Glu Asp Ala Leu Asp Ala Phe Cys Gln Val Gly Gln  
 225 230 235 240  
 Gln Pro Leu Ile Ala Val Ala Leu Leu Gly Asn Ile Ser Ser Ile Ala  
 245 250 255  
 Phe Phe Asn Phe Ala Gly Ile Ser Val Thr Lys Glu Leu Ser Ala Thr  
 260 265 270  
 Thr Arg Met Val Leu Asp Ser Leu Arg Thr Val Val Ile Trp Ala Leu  
 275 280 285  
 Ser Leu Ala Leu Gly Trp Glu Ala Phe His Ala Leu Gln Ile Leu Gly  
 290 295 300  
 Phe Leu Ile Leu Leu Ile Gly Thr Ala Leu Tyr Asn Gly Leu His Arg  
 305 310 315 320  
 Pro Leu Leu Gly Arg Leu Ser Arg Gly Arg Pro Leu Ala Glu Glu Ser  
 325 330 335  
 Glu Gln Glu Arg Leu Leu Gly Gly Thr Arg Thr Pro Ile Asn Asp Ala  
 340 345 350  
 Ser

<210> 284  
 <211> 29  
 <212> PRT  
 <213> Homo sapiens

<400> 284  
 Ser Ile Asn Thr Leu Ser Ala Lys Trp Ala Asp Asn Phe Met Ala Glu  
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 Gly Cys Gly Gly Ser Lys Glu His Ser Phe Gln His Pro  
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<210> 285  
 <211> 9  
 <212> PRT  
 <213> Homo sapiens

<400> 285  
 Asn Met Thr Ser Ala Ser Ser Phe Gln  
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<210> 286  
 <211> 14  
 <212> PRT  
 <213> Homo sapiens

<400> 286  
 Asp Leu Leu Ser Lys His Asp Ser Gln His Lys Leu Ser Glu  
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<210> 287  
 <211> 27  
 <212> PRT  
 <213> Homo sapiens

<400> 287  
 Pro Ala Gly Ser Phe Ser Gly Asn Pro Arg Gly Thr Leu Glu Asp Ala  
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<210> 288  
 <211> 7  
 <212> PRT  
 <213> Homo sapiens

<400> 288  
 Glu Ala Phe His Ala Leu Gln  
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<210> 289  
 <211> 21  
 <212> PRT  
 <213> Homo sapiens

<400> 289  
 Phe Leu Gln Ala Val Gly Met Phe Leu Gly Glu Phe Ser Cys Leu Ala  
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 Ala Phe Tyr Leu Leu  
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<210> 290  
 <211> 21  
 <212> PRT  
 <213> Homo sapiens

<400> 290  
 Leu Leu Phe Leu Pro Pro Ala Leu Cys Asp Met Thr Gly Thr Ser Leu  
 1 5 10 15

Met Tyr Val Ala Leu  
20

<210> 291  
<211> 19  
<212> PRT  
<213> Homo sapiens

<400> 291  
Met Leu Arg Gly Ala Val Ile Ile Phe Thr Gly Leu Phe Ser Val Ala  
1 5 10 15  
Phe Leu Gly

<210> 292  
<211> 17  
<212> PRT  
<213> Homo sapiens

<400> 292  
Trp Leu Gly Ile Leu Ala Thr Ile Ala Gly Leu Val Val Val Gly Leu  
1 5 10 15  
Ala

<210> 293  
<211> 17  
<212> PRT  
<213> Homo sapiens

<400> 293  
Val Ile Thr Gly Asp Leu Leu Ile Ile Met Ala Gln Ile Ile Val Ala  
1 5 10 15  
Ile

<210> 294  
<211> 18  
<212> PRT  
<213> Homo sapiens

<400> 294  
Gly Leu Phe Gly Phe Val Ile Leu Ser Leu Leu Leu Val Pro Met Tyr  
1 5 10 15  
Tyr Ile

<210> 295  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 295  
 Leu Ile Ala Val Ala Leu Leu Gly Asn Ile Ser Ser Ile Ala Phe Phe  
 1 5 10 15  
 Asn Phe Ala Gly Ile Ser Val  
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<210> 296  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 296  
 Met Val Leu Asp Ser Leu Arg Thr Val Val Ile Trp Ala Leu Ser Leu  
 1 5 10 15  
 Ala Leu Gly Trp  
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<210> 297  
 <211> 17  
 <212> PRT  
 <213> Homo sapiens

<400> 297  
 Ile Leu Gly Phe Leu Ile Leu Leu Ile Gly Thr Ala Leu Tyr Asn Gly  
 1 5 10 15  
 Leu

<210> 298  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 298  
 Arg Cys Arg Ala Ala Gly Gln Ser Asp Ser Ser Val Asp Pro Gln Gln  
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 Pro Phe Asn Pro  
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<210> 299  
 <211> 7  
 <212> PRT  
 <213> Homo sapiens

<400> 299  
 Arg Arg Leu Val Leu Ser Gln  
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<210> 300  
 <211> 23  
 <212> PRT

<213> Homo sapiens

<400> 300

Gln Met Val Leu Glu Glu Lys Phe Val Tyr Lys His Asn Val His Pro  
1 5 10 15  
Leu Arg Ala Val Gly Thr Glu  
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<210> 301

<211> 9

<212> PRT

<213> Homo sapiens

<400> 301

Thr Lys Glu Leu Ser Ala Thr Thr Arg  
1 5

<210> 302

<211> 35

<212> PRT

<213> Homo sapiens

<400> 302

His Arg Pro Leu Leu Gly Arg Leu Ser Arg Gly Arg Pro Leu Ala Glu  
1 5 10 15  
Glu Ser Glu Gln Glu Arg Leu Leu Gly Gly Thr Arg Thr Pro Ile Asn  
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Asp Ala Ser  
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<210> 303

<211> 2811

<212> DNA

<213> Homo sapiens

<400> 303

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<210> 304  
 <211> 729  
 <212> DNA  
 <213> Homo sapiens

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<400> 304
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gctgaggtgt ggtggaacct tgtgccgctg aagacagtgt cttctgggga gctggccacg 120
gtagtacggc ggttctccca gaccggcatc caggacttcc tgacactgac gctgacggag 180
cccactgggc ttctgtactg gggcgcccga gagccctgtg ttgccttcag catggaggcc 240
ctggagctgc aaggagcgat ctctggggag gccccgtgg agaagaagac tgagtgtatc 300
cagaaagggg agaacaacca gaccgagtgc ttcaacttca tccgcttcct gcagccctac 360
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agtgtcccta tgaccagct aagggccatg ctggccttct tgtggatggt gagctgtact 660
cggccacact caacaacttc ctgggcacgg aaccattat cctgcgtaac atggggcccc 720
accactcca
729

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<210> 305  
 <211> 243  
 <212> PRT  
 <213> Homo sapiens

<400> 305  
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			20					25					30			
Val	Ser	Ser	Gly	Glu	Leu	Ala	Thr	Val	Val	Arg	Arg	Phe	Ser	Gln	Thr	
		35					40					45				
Gly	Ile	Gln	Asp	Phe	Leu	Thr	Leu	Thr	Leu	Thr	Glu	Pro	Thr	Gly	Leu	
	50					55					60					
Leu	Tyr	Val	Gly	Ala	Arg	Glu	Ala	Leu	Phe	Ala	Phe	Ser	Met	Glu	Ala	
65					70					75					80	
Leu	Glu	Leu	Gln	Gly	Ala	Ile	Ser	Trp	Glu	Ala	Pro	Val	Glu	Lys	Lys	
			85					90						95		
Thr	Glu	Cys	Ile	Gln	Lys	Gly	Lys	Asn	Asn	Gln	Thr	Glu	Cys	Phe	Asn	
			100					105						110		
Phe	Ile	Arg	Phe	Leu	Gln	Pro	Tyr	Asn	Ala	Ser	His	Leu	Tyr	Val	Cys	
		115					120						125			
Gly	Thr	Tyr	Ala	Phe	Gln	Pro	Lys	Cys	Thr	Tyr	Val	Val	Ser	Ala	Ala	
	130					135					140					
Leu	Leu	Pro	Arg	Cys	Pro	Gln	Pro	Pro	Ala	Leu	Leu	Thr	Leu	Leu	Trp	
145					150					155					160	
Thr	Arg	Gly	Cys	Gly	Pro	Gln	Ser	Pro	Ala	Leu	Lys	His	Leu	Leu	Ile	
			165					170							175	
Thr	Ser	Leu	Ser	Val	Leu	Arg	Thr	Cys	Ser	Pro	Ser	Leu	Trp	Ser	Met	
			180					185						190		
Glu	Ser	Leu	Lys	Met	Gly	Arg	Ala	Ser	Val	Pro	Met	Thr	Gln	Leu	Arg	
	195						200					205				
Ala	Met	Leu	Ala	Phe	Leu	Trp	Met	Val	Ser	Cys	Thr	Arg	Pro	His	Ser	
	210					215					220					
Thr	Thr	Ser	Trp	Ala	Arg	Asn	Pro	Leu	Ser	Cys	Val	Thr	Trp	Gly	Pro	
225					230					235					240	
Thr	Thr	Pro														

<210> 306  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 306  
 Met Ala Pro His Trp Ala Val Trp Leu Leu Ala Ala Arg Leu Trp Gly  
 1 5 10 15  
 Leu Gly Ile Gly  
 20

<210> 307  
 <211> 223  
 <212> PRT  
 <213> Homo sapiens

<400> 307  
 Ala Glu Val Trp Trp Asn Leu Val Pro Arg Lys Thr Val Ser Ser Gly  
 1 5 10 15  
 Glu Leu Ala Thr Val Val Arg Arg Phe Ser Gln Thr Gly Ile Gln Asp  
 20 25 30  
 Phe Leu Thr Leu Thr Leu Thr Glu Pro Thr Gly Leu Leu Tyr Val Gly  
 35 40 45

Ala	Arg	Glu	Ala	Leu	Phe	Ala	Phe	Ser	Met	Glu	Ala	Leu	Glu	Leu	Gln
50						55					60				
Gly	Ala	Ile	Ser	Trp	Glu	Ala	Pro	Val	Glu	Lys	Lys	Thr	Glu	Cys	Ile
65					70					75					80
Gln	Lys	Gly	Lys	Asn	Asn	Gln	Thr	Glu	Cys	Phe	Asn	Phe	Ile	Arg	Phe
				85					90					95	
Leu	Gln	Pro	Tyr	Asn	Ala	Ser	His	Leu	Tyr	Val	Cys	Gly	Thr	Tyr	Ala
			100					105					110		
Phe	Gln	Pro	Lys	Cys	Thr	Tyr	Val	Val	Ser	Ala	Ala	Leu	Leu	Pro	Arg
		115					120					125			
Cys	Pro	Gln	Pro	Pro	Ala	Leu	Leu	Thr	Leu	Leu	Trp	Thr	Arg	Gly	Cys
	130					135					140				
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Val	Leu	Arg	Thr	Cys	Ser	Pro	Ser	Leu	Trp	Ser	Met	Glu	Ser	Leu	Lys
				165					170					175	
Met	Gly	Arg	Ala	Ser	Val	Pro	Met	Thr	Gln	Leu	Arg	Ala	Met	Leu	Ala
			180					185					190		
Phe	Leu	Trp	Met	Val	Ser	Cys	Thr	Arg	Pro	His	Ser	Thr	Thr	Ser	Trp
	195						200					205			
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	210					215					220				

<210> 308  
 <211> 2498  
 <212> DNA  
 <213> Homo sapiens

<400> 308

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gaagaagtgt	ttacatcaaa	agaagaagca	aactttttca	tacatagacg	ccttctgtat	360
aatagatttg	atctggagct	cttactccc	ggcaacctag	aaagagagtg	caatgaagaa	420
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gccttgtctc	cattgccgcc	ttctgtggag	gatgcaggat	taccttctta	tgaacaggca	780
gtggcgctga	ccagaaaaca	cagtgtttca	ccaccaccac	catatcctgg	gcacacaaaa	840
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ggtataagaa	atltgtgtta	tttgataggc	cgggcatggt	ggctcatgcc	tgtaatccca	960
gcactttggg	aggccaggag	ttcgagacca	gcctggccaa	catggtgaaa	cccgtctctt	1020
actaaaaatt	caaaaattac	ctaggcgctca	tggggcatgc	ctgtagtccc	acctacttgg	1080
gaggctgaag	caggagaatt	gctcgaacct	gggaggcaga	ggttgcagta	agctgagatc	1140
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gaggagaagg	agaagaagaa	gaagaagaag	accacaaaag	acatgactat	ccaacttttt	1320
atgacaaact	gcaaggaata	aaggaagaat	aagtccatgt	actgtaccac	agaagttctg	1380
tctgcatctt	ggacctgaac	ttgatcatta	tcagcttgat	aagagacttt	ttgactctat	1440
atccttgcag	ttaagaagaa	agcacttttt	tgtaatgttt	gttttaaatg	ttcaaaaaaa	1500
atctttctta	taaagagcat	aggtagaatt	agtgaactct	ttggatcctt	tgtacagata	1560
aaggttatag	atttcttgtg	ttgaatatta	aaaaagcaag	gatgtctaac	cattaagatt	1620

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atccaaagtc aggctgggcg cagtggctca cgctgtaat cccagcactt tgggagggat 1680
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cactagaact taatgaagtt gccctgttga ctgattagta aatactccca tcttcgttgc 2340
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aatagtttga gaatgtgga aaagtaattt gcttttctgc tcttaaaata atattgatta 2460
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<210> 309
<211> 678
<212> DNA
<213> Homo sapiens

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<400> 309
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gaagcaaact ttttcataca tagacgcctt ctgtataata gatttgatct ggagctcttc 180
actcccggca acctagaaag agagtgcatt gaagaacttt gcaattatga ggaagccaga 240
gagatttttg tggatgaaga taaaacgatt gcattttggc aggaatattc agctaaagga 300
ccaaccacaa aatcagatgg caacagagag aaaatagatg ttatgggcct tctgactgga 360
ttaattgctg ctggagtatt tttggttatt tttggattac ttggctacta tctttgtatc 420
actaagtgtg ataggctaca acatccatgc tcttcagccg tctatgaaag ggggaggcac 480
actccctcca tcattttcag aagacctgag gaggtgcct tgtctccatt gccgccttct 540
gtggaggatg caggattacc ttcttatgaa caggcagtgg cgctgaccag aaaacacagt 600
gtttcaccac caccaccata tcctgggcac acaaaaggat ttaggggtatt taaaaaatct 660
atgtctctcc catctcac 678

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<210> 310
<211> 226
<212> PRT
<213> Homo sapiens

```

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<400> 310
Met Phe Thr Leu Leu Val Leu Leu Ser Gln Leu Pro Thr Val Thr Leu
 1           5           10           15
Gly Phe Pro His Cys Ala Arg Gly Pro Lys Ala Ser Lys His Ala Gly
 20           25           30
Glu Glu Val Phe Thr Ser Lys Glu Ala Asn Phe Phe Ile His Arg
 35           40           45
Arg Leu Leu Tyr Asn Arg Phe Asp Leu Glu Leu Phe Thr Pro Gly Asn
 50           55           60
Leu Glu Arg Glu Cys Asn Glu Glu Leu Cys Asn Tyr Glu Glu Ala Arg
 65           70           75           80
Glu Ile Phe Val Asp Glu Asp Lys Thr Ile Ala Phe Trp Gln Glu Tyr
 85           90           95
Ser Ala Lys Gly Pro Thr Thr Lys Ser Asp Gly Asn Arg Glu Lys Ile
100          105          110
Asp Val Met Gly Leu Leu Thr Gly Leu Ile Ala Ala Gly Val Phe Leu
115          120          125

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Val	Ile	Phe	Gly	Leu	Leu	Gly	Tyr	Tyr	Leu	Cys	Ile	Thr	Lys	Cys	Asn
130						135					140				
Arg	Leu	Gln	His	Pro	Cys	Ser	Ser	Ala	Val	Tyr	Glu	Arg	Gly	Arg	His
145					150					155					160
Thr	Pro	Ser	Ile	Ile	Phe	Arg	Arg	Pro	Glu	Glu	Ala	Ala	Leu	Ser	Pro
				165					170					175	
Leu	Pro	Pro	Ser	Val	Glu	Asp	Ala	Gly	Leu	Pro	Ser	Tyr	Glu	Gln	Ala
				180				185						190	
Val	Ala	Leu	Thr	Arg	Lys	His	Ser	Val	Ser	Pro	Pro	Pro	Pro	Tyr	Pro
	195						200					205			
Gly	His	Thr	Lys	Gly	Phe	Arg	Val	Phe	Lys	Lys	Ser	Met	Ser	Leu	Pro
210						215					220				
Ser	His														
225															

<210> 311  
 <211> 17  
 <212> PRT  
 <213> Homo sapiens

<400> 311  
 Met Phe Thr Leu Leu Val Leu Leu Ser Gln Leu Pro Thr Val Thr Leu  
 1 5 10 15  
 Gly

<210> 312  
 <211> 209  
 <212> PRT  
 <213> Homo sapiens

<400> 312  
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 1 5 10 15  
 Glu Val Phe Thr Ser Lys Glu Glu Ala Asn Phe Phe Ile His Arg Arg  
 20 25 30  
 Leu Leu Tyr Asn Arg Phe Asp Leu Glu Leu Phe Thr Pro Gly Asn Leu  
 35 40 45  
 Glu Arg Glu Cys Asn Glu Glu Leu Cys Asn Tyr Glu Glu Ala Arg Glu  
 50 55 60  
 Ile Phe Val Asp Glu Asp Lys Thr Ile Ala Phe Trp Gln Glu Tyr Ser  
 65 70 75 80  
 Ala Lys Gly Pro Thr Thr Lys Ser Asp Gly Asn Arg Glu Lys Ile Asp  
 85 90 95  
 Val Met Gly Leu Leu Thr Gly Leu Ile Ala Ala Gly Val Phe Leu Val  
 100 105 110  
 Ile Phe Gly Leu Leu Gly Tyr Tyr Leu Cys Ile Thr Lys Cys Asn Arg  
 115 120 125  
 Leu Gln His Pro Cys Ser Ser Ala Val Tyr Glu Arg Gly Arg His Thr  
 130 135 140  
 Pro Ser Ile Ile Phe Arg Arg Pro Glu Glu Ala Ala Leu Ser Pro Leu  
 145 150 155 160  
 Pro Pro Ser Val Glu Asp Ala Gly Leu Pro Ser Tyr Glu Gln Ala Val  
 165 170 175  
 Ala Leu Thr Arg Lys His Ser Val Ser Pro Pro Pro Tyr Pro Gly

			180					185					190				
His	Thr	Lys	Gly	Phe	Arg	Val	Phe	Lys	Lys	Ser	Met	Ser	Leu	Pro	Ser		
		195					200					205					
His																	

<210> 313  
 <211> 96  
 <212> PRT  
 <213> Homo sapiens

<400> 313

Phe	Pro	His	Cys	Ala	Arg	Gly	Pro	Lys	Ala	Ser	Lys	His	Ala	Gly	Glu		
1				5					10					15			
Glu	Val	Phe	Thr	Ser	Lys	Glu	Glu	Ala	Asn	Phe	Phe	Ile	His	Arg	Arg		
			20					25					30				
Leu	Leu	Tyr	Asn	Arg	Phe	Asp	Leu	Glu	Leu	Phe	Thr	Pro	Gly	Asn	Leu		
		35					40					45					
Glu	Arg	Glu	Cys	Asn	Glu	Glu	Leu	Cys	Asn	Tyr	Glu	Glu	Ala	Arg	Glu		
	50					55					60						
Ile	Phe	Val	Asp	Glu	Asp	Lys	Thr	Ile	Ala	Phe	Trp	Gln	Glu	Tyr	Ser		
65					70					75					80		
Ala	Lys	Gly	Pro	Thr	Thr	Lys	Ser	Asp	Gly	Asn	Arg	Glu	Lys	Ile	Asp		
				85					90					95			

<210> 314  
 <211> 25  
 <212> PRT  
 <213> Homo sapiens

<400> 314

Val	Met	Gly	Leu	Leu	Thr	Gly	Leu	Ile	Ala	Ala	Gly	Val	Phe	Leu	Val		
1				5					10					15			
Ile	Phe	Gly	Leu	Leu	Gly	Tyr	Tyr	Leu									
			20					25									

<210> 315  
 <211> 88  
 <212> PRT  
 <213> Homo sapiens

<400> 315

Cys	Ile	Thr	Lys	Cys	Asn	Arg	Leu	Gln	His	Pro	Cys	Ser	Ser	Ala	Val		
1				5					10					15			
Tyr	Glu	Arg	Gly	Arg	His	Thr	Pro	Ser	Ile	Ile	Phe	Arg	Arg	Pro	Glu		
			20					25					30				
Glu	Ala	Ala	Leu	Ser	Pro	Leu	Pro	Pro	Ser	Val	Glu	Asp	Ala	Gly	Leu		
		35					40					45					
Pro	Ser	Tyr	Glu	Gln	Ala	Val	Ala	Leu	Thr	Arg	Lys	His	Ser	Val	Ser		
	50					55					60						
Pro	Pro	Pro	Pro	Tyr	Pro	Gly	His	Thr	Lys	Gly	Phe	Arg	Val	Phe	Lys		
65					70					75					80		
Lys	Ser	Met	Ser	Leu	Pro	Ser	His										
				85													

<210> 316

<220>

<223> Unknown

<400> 316

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<210> 317

<220>

<223> Unknown

<400> 317

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<210> 318

<220>

<223> Unknown

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<223> Unknown

<400> 322

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<210> 323

<220>

<223> Unknown

<400> 323

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<210> 324

<211> 1432

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(1432)

<223> n = A,T,C or G

<400> 324

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cacggccgca ggacctggag ctccggctgc gtcttcccgc agcgctaccc gccatgcgcc 120
tgccgcgccg ggccgcgctg gggctcctgc cgcttctgct gctgctgccg cccgcgccgg 180
aggccgcca gaagccgacg ccctgccacc ggtgccgggg gctggtggac aagtttaacc 240
aggggatggt ggacaccgca aagaagaact ttggcggcgg gaacacggct tgggaggaaa 300
agacgctgtc caagtacgag tccagcgaga ttgcctgtc ggagatcctg gaggggctgt 360
gcgagagcag cgacttcgaa tgcaatcaga tgctagaggc gcaggaggag cacctggagg 420
cctggtggct gcagctgaag agcgaatatc ctgacttatt cgagtggttt tgtgtgaaga 480
cactgaaagt gtgctgctct ccaggaacct acggtcccga ctgtctcgca tgccaggggc 540
gatcccagag gccctgcagc gggaatggcc actgcagcgg agatgggagc agacaggggc 600
acgggtcctg ccggtgccac atgggggtacc agggcccgcg gtgcaactgac tgcattggac 660
gctacttcag ctcgctccgg aacgagacct acagcatctg cacagcctgt gacgagtcct 720
gcaagacgtg ctcgggcctg accaacagag actgcggcga gtgtgaagtg ggctgggtgc 780
tggaagaggg cgctgtgtg gatgtggacg agtgtgcggc cgagccgcct ccctgcagcg 840
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gcccagacac cgctccctcc cgcgaagacc gttaattgtc cggacttacc ctttaaatta 1200
ttcagaagga tgtcccgtgg aaaatgtggc cctgaggatg ccgtctcctg cagtggacag 1260
cggcggggag aggtgcctg ctctctaacg gttgattctc atttgtccct taaacagctg 1320
catttcttgg ttgttcttaa acagacttgt atattttgat acagttcttt gtaataaaat 1380
tgaccattgt aggtaatcaa aaaaaaaaaa aaaaaaaggg cggccgctag ac 1432
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<210> 325

<211> 1059

<212> DNA

<213> Homo sapiens

<400> 325

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gcgccggagg ccgccaagaa gccgacgccc tgccaccggg gccgggggct ggtggacaag 120
tttaaccagg ggatggtgga caccgcaaag aagaactttg gcggcgggaa cacggcttgg 180
gaggaaaaga cgctgtccaa gtacgagtc agcgagatcc gcctgctgga gatcctggag 240
gggctgtgcg agagcagcga cttcgaatgc aatcagatgc tagaggcgca ggaggagcac 300
ctggaggcct ggtggctgca gctgaagagc gaatatcctg acttattcga gtggttttgc 360
```

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gtgaagacac tgaaagtgtg ctgctctcca ggaacctacg gtcccgactg tctcgcatgc 420
cagggcgat cccagaggcc ctgcagcggg aatggccact gcagcggaga tgggagcaga 480
cagggcgacg ggtcctgccg gtgccacatg ggggtaccagg gcccgtgtg cactgactgc 540
atggacggct acttcagctc gctccggaac gagaccaca gcactctgcac agcctgtgac 600
gagtcctgca agacgtgctc gggcctgacc aacagagact gcggcgagtg tgaagtgggc 660
tggtgtgtgg acgagggcgc ctgtgtggat gtggacgagt gtgcggccga gccgcctccc 720
tgcagcgtg cgcagttctg taagaacgcc aacggctcct acacgtgcga agagtgtgac 780
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tgtgtgagga aaaacgaaaa ctgctacaat actccaggga gctacgtctg tgtgtgtcct 960
gacggcttcg aagaaacgga agatgcctgt gtgccgcggg cagaggctga agccacagaa 1020
ggagaaagcc cgacacagct gccctccgc gaagacctg 1059

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<210> 326
<211> 353
<212> PRT
<213> Homo sapiens

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<400> 326
Met Arg Leu Pro Arg Arg Ala Ala Leu Gly Leu Leu Pro Leu Leu Leu
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Leu Leu Pro Pro Ala Pro Glu Ala Ala Lys Lys Pro Thr Pro Cys His
20 25 30
Arg Cys Arg Gly Leu Val Asp Lys Phe Asn Gln Gly Met Val Asp Thr
35 40 45
Ala Lys Lys Asn Phe Gly Gly Gly Asn Thr Ala Trp Glu Glu Lys Thr
50 55 60
Leu Ser Lys Tyr Glu Ser Ser Glu Ile Arg Leu Leu Glu Ile Leu Glu
65 70 75 80
Gly Leu Cys Glu Ser Ser Asp Phe Glu Cys Asn Gln Met Leu Glu Ala
85 90 95
Gln Glu Glu His Leu Glu Ala Trp Trp Leu Gln Leu Lys Ser Glu Tyr
100 105 110
Pro Asp Leu Phe Glu Trp Phe Cys Val Lys Thr Leu Lys Val Cys Cys
115 120 125
Ser Pro Gly Thr Tyr Gly Pro Asp Cys Leu Ala Cys Gln Gly Gly Ser
130 135 140
Gln Arg Pro Cys Ser Gly Asn Gly His Cys Ser Gly Asp Gly Ser Arg
145 150 155 160
Gln Gly Asp Gly Ser Cys Arg Cys His Met Gly Tyr Gln Gly Pro Leu
165 170 175
Cys Thr Asp Cys Met Asp Gly Tyr Phe Ser Ser Leu Arg Asn Glu Thr
180 185 190
His Ser Ile Cys Thr Ala Cys Asp Glu Ser Cys Lys Thr Cys Ser Gly
195 200 205
Leu Thr Asn Arg Asp Cys Gly Glu Cys Glu Val Gly Trp Val Leu Asp
210 215 220
Glu Gly Ala Cys Val Asp Val Asp Glu Cys Ala Ala Glu Pro Pro Pro
225 230 235 240
Cys Ser Ala Ala Gln Phe Cys Lys Asn Ala Asn Gly Ser Tyr Thr Cys
245 250 255
Glu Glu Cys Asp Ser Ser Cys Val Gly Cys Thr Gly Glu Gly Pro Gly
260 265 270
Asn Cys Lys Glu Cys Ile Ser Gly Tyr Ala Arg Glu His Gly Gln Cys
275 280 285
Ala Asp Val Asp Glu Cys Ser Leu Ala Glu Lys Thr Cys Val Arg Lys
290 295 300

```



Asn	Glu	Asn	Cys	Tyr	Asn	Thr	Pro	Gly	Ser	Tyr	Val	Cys	Val	Cys	Pro
305					310					315					320
Asp	Gly	Phe	Glu	Glu	Thr	Glu	Asp	Ala	Cys	Val	Pro	Pro	Ala	Glu	Ala
			325						330					335	
Glu	Ala	Thr	Glu	Gly	Glu	Ser	Pro	Thr	Gln	Leu	Pro	Ser	Arg	Glu	Asp
			340					345					350		

Leu

<210> 327  
 <211> 24  
 <212> PRT  
 <213> Homo sapiens

<400> 327  
 Met Arg Leu Pro Arg Arg Ala Ala Leu Gly Leu Leu Pro Leu Leu Leu  
 1 5 10 15  
 Leu Leu Pro Pro Ala Pro Glu Ala  
 20

<210> 328  
 <211> 329  
 <212> PRT  
 <213> Homo sapiens

<400> 328  
 Ala Lys Lys Pro Thr Pro Cys His Arg Cys Arg Gly Leu Val Asp Lys  
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 Phe Asn Gln Gly Met Val Asp Thr Ala Lys Lys Asn Phe Gly Gly Gly  
 20 25 30  
 Asn Thr Ala Trp Glu Glu Lys Thr Leu Ser Lys Tyr Glu Ser Ser Glu  
 35 40 45  
 Ile Arg Leu Leu Glu Ile Leu Glu Gly Leu Cys Glu Ser Ser Asp Phe  
 50 55 60  
 Glu Cys Asn Gln Met Leu Glu Ala Gln Glu Glu His Leu Glu Ala Trp  
 65 70 75 80  
 Trp Leu Gln Leu Lys Ser Glu Tyr Pro Asp Leu Phe Glu Trp Phe Cys  
 85 90 95  
 Val Lys Thr Leu Lys Val Cys Cys Ser Pro Gly Thr Tyr Gly Pro Asp  
 100 105 110  
 Cys Leu Ala Cys Gln Gly Gly Ser Gln Arg Pro Cys Ser Gly Asn Gly  
 115 120 125  
 His Cys Ser Gly Asp Gly Ser Arg Gln Gly Asp Gly Ser Cys Arg Cys  
 130 135 140  
 His Met Gly Tyr Gln Gly Pro Leu Cys Thr Asp Cys Met Asp Gly Tyr  
 145 150 155 160  
 Phe Ser Ser Leu Arg Asn Glu Thr His Ser Ile Cys Thr Ala Cys Asp  
 165 170 175  
 Glu Ser Cys Lys Thr Cys Ser Gly Leu Thr Asn Arg Asp Cys Gly Glu  
 180 185 190  
 Cys Glu Val Gly Trp Val Leu Asp Glu Gly Ala Cys Val Asp Val Asp  
 195 200 205  
 Glu Cys Ala Ala Glu Pro Pro Cys Ser Ala Ala Gln Phe Cys Lys  
 210 215 220

Asn	Ala	Asn	Gly	Ser	Tyr	Thr	Cys	Glu	Glu	Cys	Asp	Ser	Ser	Cys	Val
225					230					235					240
Gly	Cys	Thr	Gly	Glu	Gly	Pro	Gly	Asn	Cys	Lys	Glu	Cys	Ile	Ser	Gly
			245						250					255	
Tyr	Ala	Arg	Glu	His	Gly	Gln	Cys	Ala	Asp	Val	Asp	Glu	Cys	Ser	Leu
	260							265					270		
Ala	Glu	Lys	Thr	Cys	Val	Arg	Lys	Asn	Glu	Asn	Cys	Tyr	Asn	Thr	Pro
	275						280					285			
Gly	Ser	Tyr	Val	Cys	Val	Cys	Pro	Asp	Gly	Phe	Glu	Glu	Thr	Glu	Asp
	290					295					300				
Ala	Cys	Val	Pro	Pro	Ala	Glu	Ala	Glu	Ala	Thr	Glu	Gly	Glu	Ser	Pro
305					310					315					320
Thr	Gln	Leu	Pro	Ser	Arg	Glu	Asp	Leu							
				325											

<210> 329  
 <211> 2730  
 <212> DNA  
 <213> Homo sapiens

<400> 329

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cgacaaactt	cgcagtgccg	cgacccaacc	ccagccctgg	gtagcctgca	gcatggccca	180
gctgttcctg	cccctgctgg	cagccctggg	cctggcccag	gctcctgcag	ctttagcaga	240
tgttctggaa	ggagacagct	cagaggaccg	cgcttttcgc	gtgcgcacgc	cgggcgacgc	300
gccactgcag	ggcgtgctcg	gcggcgccct	caccatccct	tgccacgtcc	actacctgcg	360
gccaccgccg	agccgcgccg	ctgtgctggg	ctctccgcgg	gtcaagtgga	ctttcctgtc	420
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ctgttacgga	gacatggatg	gcttccccgg	gggtccggaac	tatggtgtgg	tggacccgga	900
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ccctccagag	aagctgacat	tggaggaagc	acgggcgtac	tgccaggagc	ggggtgcaga	1020
gattgccacc	acgggccaac	tgtatgcagc	ctgggagggt	ggcctggacc	actgcagccc	1080
aggggtggcta	gctgatggca	gtgtgcgcta	ccccatcgtc	acaccagacc	agcgtgtgtg	1140
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taagcacagc	cgcttcaacg	tctactgctt	ccgagactcg	gcccagcctt	ctgccatccc	1260
tgaggcctcc	aaccagcct	ccaaccagc	ctctgatgga	ctagaggcta	tcgtcacagt	1320
gacagagacc	ctggaggaac	tgcagctgcc	tcaggaagcc	acagagagtg	aatcccgtgg	1380
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gaagtcactc	tcccaggcgc	cagcaagggc	agtcctgcag	cctgggtgcat	caccacttcc	1740
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<210> 330  
 <211> 2013  
 <212> DNA  
 <213> Homo sapiens

<400> 330						
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gcagggacct	cagtgcaggc	ccagccagtg	ctgcccactg	acagcgccag	ccgagggtgga	1920
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<210> 331  
 <211> 671  
 <212> PRT

<213> Homo sapiens

<400> 331

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		20						25					30		
Arg	Ala	Phe	Arg	Val	Arg	Ile	Ala	Gly	Asp	Ala	Pro	Leu	Gln	Gly	Val
		35					40					45			
Leu	Gly	Gly	Ala	Leu	Thr	Ile	Pro	Cys	His	Val	His	Tyr	Leu	Arg	Pro
	50					55					60				
Pro	Pro	Ser	Arg	Arg	Ala	Val	Leu	Gly	Ser	Pro	Arg	Val	Lys	Trp	Thr
65					70					75					80
Phe	Leu	Ser	Arg	Gly	Arg	Glu	Ala	Glu	Val	Leu	Val	Ala	Arg	Gly	Val
				85				90						95	
Arg	Val	Lys	Val	Asn	Glu	Ala	Tyr	Arg	Phe	Arg	Val	Ala	Leu	Pro	Ala
			100					105					110		
Tyr	Pro	Ala	Ser	Leu	Thr	Asp	Val	Ser	Leu	Ala	Leu	Ser	Glu	Leu	Arg
	115					120						125			
Pro	Asn	Asp	Ser	Gly	Ile	Tyr	Arg	Cys	Glu	Val	Gln	His	Gly	Ile	Asp
	130					135					140				
Asp	Ser	Ser	Asp	Ala	Val	Glu	Val	Lys	Val	Lys	Gly	Val	Val	Phe	Leu
145					150					155					160
Tyr	Arg	Glu	Gly	Ser	Ala	Arg	Tyr	Ala	Phe	Ser	Phe	Ser	Gly	Ala	Gln
				165					170					175	
Glu	Ala	Cys	Ala	Arg	Ile	Gly	Ala	His	Ile	Ala	Thr	Pro	Glu	Gln	Leu
			180					185					190		
Tyr	Ala	Ala	Tyr	Leu	Gly	Gly	Tyr	Glu	Gln	Cys	Asp	Ala	Gly	Trp	Leu
	195						200					205			
Ser	Asp	Gln	Thr	Val	Arg	Tyr	Pro	Ile	Gln	Thr	Pro	Arg	Glu	Ala	Cys
	210					215					220				
Tyr	Gly	Asp	Met	Asp	Gly	Phe	Pro	Gly	Val	Arg	Asn	Tyr	Gly	Val	Val
225					230					235					240
Asp	Pro	Asp	Asp	Leu	Tyr	Asp	Val	Tyr	Cys	Tyr	Ala	Glu	Asp	Leu	Asn
				245					250					255	
Gly	Glu	Leu	Phe	Leu	Gly	Asp	Pro	Pro	Glu	Lys	Leu	Thr	Leu	Glu	Glu
			260					265					270		
Ala	Arg	Ala	Tyr	Cys	Gln	Glu	Arg	Gly	Ala	Glu	Ile	Ala	Thr	Thr	Gly
	275						280					285			
Gln	Leu	Tyr	Ala	Ala	Trp	Asp	Gly	Gly	Leu	Asp	His	Cys	Ser	Pro	Gly
	290					295					300				
Trp	Leu	Ala	Asp	Gly	Ser	Val	Arg	Tyr	Pro	Ile	Val	Thr	Pro	Ser	Gln
305					310					315					320
Arg	Cys	Gly	Gly	Gly	Leu	Pro	Gly	Val	Lys	Thr	Leu	Phe	Leu	Phe	Pro
				325					330					335	
Asn	Gln	Thr	Gly	Phe	Pro	Asn	Lys	His	Ser	Arg	Phe	Asn	Val	Tyr	Cys
			340					345					350		
Phe	Arg	Asp	Ser	Ala	Gln	Pro	Ser	Ala	Ile	Pro	Glu	Ala	Ser	Asn	Pro
	355						360					365			
Ala	Ser	Asn	Pro	Ala	Ser	Asp	Gly	Leu	Glu	Ala	Ile	Val	Thr	Val	Thr
	370					375					380				
Glu	Thr	Leu	Glu	Glu	Leu	Gln	Leu	Pro	Gln	Glu	Ala	Thr	Glu	Ser	Glu
385					390					395					400
Ser	Arg	Gly	Ala	Ile	Tyr	Ser	Ile	Pro	Ile	Met	Glu	Asp	Gly	Gly	Gly
				405					410					415	
Gly	Ser	Ser	Thr	Pro	Glu	Asp	Pro	Ala	Glu	Ala	Pro	Arg	Thr	Leu	Leu
			420					425					430		

Glu	Phe	Glu	Thr	Gln	Ser	Met	Val	Pro	Pro	Thr	Gly	Phe	Ser	Glu	Glu
		435					440					445			
Glu	Gly	Lys	Ala	Leu	Glu	Glu	Glu	Glu	Lys	Tyr	Glu	Asp	Glu	Glu	Glu
	450					455					460				
Lys	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Val	Glu	Asp	Glu	Ala	Leu	Trp	
465					470				475					480	
Ala	Trp	Pro	Ser	Glu	Leu	Ser	Ser	Pro	Gly	Pro	Glu	Ala	Ser	Leu	Pro
			485						490					495	
Thr	Glu	Pro	Ala	Ala	Gln	Glu	Lys	Ser	Leu	Ser	Gln	Ala	Pro	Ala	Arg
		500					505						510		
Ala	Val	Leu	Gln	Pro	Gly	Ala	Ser	Pro	Leu	Pro	Asp	Gly	Glu	Ser	Glu
	515						520					525			
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	530					535					540				
Thr	Pro	Arg	Glu	Arg	Asn	Leu	Ala	Ser	Pro	Ser	Pro	Ser	Thr	Leu	Val
545					550					555					560
Glu	Ala	Arg	Glu	Val	Gly	Glu	Ala	Thr	Gly	Gly	Pro	Glu	Leu	Ser	Gly
			565						570					575	
Val	Pro	Arg	Gly	Glu	Ser	Glu	Glu	Thr	Gly	Ser	Ser	Glu	Gly	Ala	Pro
		580						585					590		
Ser	Leu	Leu	Pro	Ala	Thr	Arg	Ala	Pro	Glu	Gly	Thr	Arg	Glu	Leu	Glu
	595						600					605			
Ala	Pro	Ser	Glu	Asp	Asn	Ser	Gly	Arg	Thr	Ala	Pro	Ala	Gly	Thr	Ser
	610					615					620				
Val	Gln	Ala	Gln	Pro	Val	Leu	Pro	Thr	Asp	Ser	Ala	Ser	Arg	Gly	Gly
625					630					635					640
Val	Ala	Val	Val	Pro	Ala	Ser	Gly	Asn	Ser	Ala	Gln	Gly	Ser	Thr	Ala
			645					650						655	
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<210> 332  
 <211> 22  
 <212> PRT  
 <213> Homo sapiens

<400> 332  
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 Ala Pro Ala Ala Leu Ala  
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<210> 333  
 <211> 649  
 <212> PRT  
 <213> Homo sapiens

<400> 333  
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 Ile Pro Cys His Val His Tyr Leu Arg Pro Pro Pro Ser Arg Arg Ala  
 35 40 45  
 Val Leu Gly Ser Pro Arg Val Lys Trp Thr Phe Leu Ser Arg Gly Arg

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Glu	Ala	Glu	Val	Leu	Val	Ala	Arg	Gly	Val	Arg	Val	Lys	Val	Asn	Glu
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Ala	Tyr	Arg	Phe	Arg	Val	Ala	Leu	Pro	Ala	Tyr	Pro	Ala	Ser	Leu	Thr
			85							90				95	
Asp	Val	Ser	Leu	Ala	Leu	Ser	Glu	Leu	Arg	Pro	Asn	Asp	Ser	Gly	Ile
			100					105					110		
Tyr	Arg	Cys	Glu	Val	Gln	His	Gly	Ile	Asp	Asp	Ser	Ser	Asp	Ala	Val
		115					120					125			
Glu	Val	Lys	Val	Lys	Gly	Val	Val	Phe	Leu	Tyr	Arg	Glu	Gly	Ser	Ala
	130				135						140				
Arg	Tyr	Ala	Phe	Ser	Phe	Ser	Gly	Ala	Gln	Glu	Ala	Cys	Ala	Arg	Ile
145					150					155					160
Gly	Ala	His	Ile	Ala	Thr	Pro	Glu	Gln	Leu	Tyr	Ala	Ala	Tyr	Leu	Gly
			165					170						175	
Gly	Tyr	Glu	Gln	Cys	Asp	Ala	Gly	Trp	Leu	Ser	Asp	Gln	Thr	Val	Arg
		180					185						190		
Tyr	Pro	Ile	Gln	Thr	Pro	Arg	Glu	Ala	Cys	Tyr	Gly	Asp	Met	Asp	Gly
	195					200						205			
Phe	Pro	Gly	Val	Arg	Asn	Tyr	Gly	Val	Val	Asp	Pro	Asp	Asp	Leu	Tyr
210					215						220				
Asp	Val	Tyr	Cys	Tyr	Ala	Glu	Asp	Leu	Asn	Gly	Glu	Leu	Phe	Leu	Gly
225					230					235					240
Asp	Pro	Pro	Glu	Lys	Leu	Thr	Leu	Glu	Glu	Ala	Arg	Ala	Tyr	Cys	Gln
			245					250						255	
Glu	Arg	Gly	Ala	Glu	Ile	Ala	Thr	Thr	Gly	Gln	Leu	Tyr	Ala	Ala	Trp
		260					265						270		
Asp	Gly	Gly	Leu	Asp	His	Cys	Ser	Pro	Gly	Trp	Leu	Ala	Asp	Gly	Ser
	275					280						285			
Val	Arg	Tyr	Pro	Ile	Val	Thr	Pro	Ser	Gln	Arg	Cys	Gly	Gly	Gly	Leu
290					295						300				
Pro	Gly	Val	Lys	Thr	Leu	Phe	Leu	Phe	Pro	Asn	Gln	Thr	Gly	Phe	Pro
305				310						315					320
Asn	Lys	His	Ser	Arg	Phe	Asn	Val	Tyr	Cys	Phe	Arg	Asp	Ser	Ala	Gln
			325						330					335	
Pro	Ser	Ala	Ile	Pro	Glu	Ala	Ser	Asn	Pro	Ala	Ser	Asn	Pro	Ala	Ser
		340					345						350		
Asp	Gly	Leu	Glu	Ala	Ile	Val	Thr	Val	Thr	Glu	Thr	Leu	Glu	Glu	Leu
	355					360						365			
Gln	Leu	Pro	Gln	Glu	Ala	Thr	Glu	Ser	Glu	Ser	Arg	Gly	Ala	Ile	Tyr
	370				375						380				
Ser	Ile	Pro	Ile	Met	Glu	Asp	Gly	Gly	Gly	Gly	Ser	Ser	Thr	Pro	Glu
385				390					395						400
Asp	Pro	Ala	Glu	Ala	Pro	Arg	Thr	Leu	Leu	Glu	Phe	Glu	Thr	Gln	Ser
			405					410						415	
Met	Val	Pro	Pro	Thr	Gly	Phe	Ser	Glu	Glu	Glu	Gly	Lys	Ala	Leu	Glu
	420						425						430		
Glu	Glu	Glu	Lys	Tyr	Glu	Asp	Glu	Glu	Glu	Lys	Glu	Glu	Glu	Glu	Glu
	435					440						445			
Glu	Glu	Glu	Val	Glu	Asp	Glu	Ala	Leu	Trp	Ala	Trp	Pro	Ser	Glu	Leu
	450				455						460				
Ser	Ser	Pro	Gly	Pro	Glu	Ala	Ser	Leu	Pro	Thr	Glu	Pro	Ala	Ala	Gln
465				470						475					480
Glu	Lys	Ser	Leu	Ser	Gln	Ala	Pro	Ala	Arg	Ala	Val	Leu	Gln	Pro	Gly
			485						490					495	
Ala	Ser	Pro	Leu	Pro	Asp	Gly	Glu	Ser	Glu	Ala	Ser	Arg	Pro	Pro	Arg
		500					505						510		

Val	His	Gly	Pro	Pro	Thr	Glu	Thr	Leu	Pro	Thr	Pro	Arg	Glu	Arg	Asn
		515					520					525			
Leu	Ala	Ser	Pro	Ser	Pro	Ser	Thr	Leu	Val	Glu	Ala	Arg	Glu	Val	Gly
	530					535					540				
Glu	Ala	Thr	Gly	Gly	Pro	Glu	Leu	Ser	Gly	Val	Pro	Arg	Gly	Glu	Ser
545					550					555					560
Glu	Glu	Thr	Gly	Ser	Ser	Glu	Gly	Ala	Pro	Ser	Leu	Leu	Pro	Ala	Thr
				565					570					575	
Arg	Ala	Pro	Glu	Gly	Thr	Arg	Glu	Leu	Glu	Ala	Pro	Ser	Glu	Asp	Asn
			580					585					590		
Ser	Gly	Arg	Thr	Ala	Pro	Ala	Gly	Thr	Ser	Val	Gln	Ala	Gln	Pro	Val
	595						600					605			
Leu	Pro	Thr	Asp	Ser	Ala	Ser	Arg	Gly	Gly	Val	Ala	Val	Val	Pro	Ala
	610					615					620				
Ser	Gly	Asn	Ser	Ala	Gln	Gly	Ser	Thr	Ala	Leu	Ser	Ile	Leu	Leu	Leu
625					630					635					640
Phe	Phe	Pro	Leu	Gln	Leu	Trp	Val	Thr							
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<210> 334  
 <211> 456  
 <212> PRT  
 <213> Pigeon pea witches'-broom phytoplasma

<400> 334

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			20					25					30		
Cys	Gly	Leu	Thr	Glu	Glu	His	Cys	Lys	Asp	Ile	Gly	Ser	Ala	Leu	Arg
		35					40					45			
Ala	Asn	Pro	Ser	Leu	Thr	Glu	Leu	Cys	Leu	Arg	Thr	Asn	Glu	Leu	Gly
	50					55					60				
Asp	Ala	Gly	Val	His	Leu	Val	Leu	Gln	Gly	Leu	Gln	Ser	Pro	Thr	Cys
65					70					75					80
Lys	Ile	Gln	Lys	Leu	Ser	Leu	Gln	Asn	Cys	Ser	Leu	Thr	Glu	Ala	Gly
				85				90						95	
Cys	Gly	Val	Leu	Pro	Ser	Thr	Leu	Arg	Ser	Leu	Pro	Thr	Leu	Arg	Glu
			100					105					110		
Leu	His	Leu	Ser	Asp	Asn	Pro	Leu	Gly	Asp	Ala	Gly	Leu	Arg	Leu	Leu
		115					120					125			
Cys	Glu	Gly	Leu	Leu	Asp	Pro	Gln	Cys	His	Leu	Glu	Lys	Leu	Gln	Leu
	130					135						140			
Glu	Tyr	Cys	Arg	Leu	Thr	Ala	Ala	Ser	Cys	Glu	Pro	Leu	Ala	Ser	Val
145					150					155					160
Leu	Arg	Ala	Thr	Arg	Ala	Leu	Lys	Glu	Leu	Thr	Val	Ser	Asn	Asn	Asp
				165					170					175	
Ile	Gly	Glu	Ala	Gly	Ala	Arg	Val	Leu	Gly	Gln	Gly	Leu	Ala	Asp	Ser
			180					185					190		
Ala	Cys	Gln	Leu	Glu	Thr	Leu	Arg	Leu	Glu	Asn	Cys	Gly	Leu	Thr	Pro
		195					200					205			
Ala	Asn	Cys	Lys	Asp	Leu	Cys	Gly	Ile	Val	Ala	Ser	Gln	Ala	Ser	Leu
	210					215					220				
Arg	Glu	Leu	Asp	Leu	Gly	Ser	Asn	Gly	Leu	Gly	Asp	Ala	Gly	Ile	Ala
225					230					235					240
Glu	Leu	Cys	Pro	Gly	Leu	Leu	Ser	Pro	Ala	Ser	Arg	Leu	Lys	Thr	Leu

				245					250					255			
Trp	Leu	Trp	Glu	Cys	Asp	Ile	Thr	Ala	Ser	Gly	Cys	Arg	Asp	Leu	Cys		
			260					265					270				
Arg	Val	Leu	Gln	Ala	Lys	Glu	Thr	Leu	Lys	Glu	Leu	Ser	Leu	Ala	Gly		
		275					280					285					
Asn	Lys	Leu	Gly	Asp	Glu	Gly	Ala	Arg	Leu	Leu	Cys	Glu	Ser	Leu	Leu		
	290					295					300						
Gln	Pro	Gly	Cys	Gln	Leu	Glu	Ser	Leu	Trp	Val	Lys	Ser	Cys	Ser	Leu		
305					310					315					320		
Thr	Ala	Ala	Cys	Cys	Gln	His	Val	Ser	Leu	Met	Leu	Thr	Gln	Asn	Lys		
			325					330						335			
His	Leu	Leu	Glu	Leu	Gln	Leu	Ser	Ser	Asn	Lys	Leu	Gly	Asp	Ser	Gly		
			340					345					350				
Ile	Gln	Glu	Leu	Cys	Gln	Ala	Leu	Ser	Gln	Pro	Gly	Thr	Thr	Leu	Arg		
	355						360					365					
Val	Leu	Cys	Leu	Gly	Asp	Cys	Glu	Val	Thr	Asn	Ser	Gly	Cys	Ser	Ser		
	370					375					380						
Leu	Ala	Ser	Leu	Leu	Leu	Ala	Asn	Arg	Ser	Leu	Arg	Glu	Leu	Asp	Leu		
385					390					395					400		
Ser	Asn	Asn	Cys	Val	Gly	Asp	Pro	Gly	Val	Leu	Gln	Leu	Leu	Gly	Ser		
			405					410						415			
Leu	Glu	Gln	Pro	Gly	Cys	Ala	Leu	Glu	Gln	Leu	Val	Leu	Tyr	Asp	Thr		
			420					425					430				
Tyr	Trp	Thr	Glu	Glu	Val	Glu	Asp	Arg	Leu	Gln	Ala	Leu	Glu	Gly	Ser		
	435					440						445					
Lys	Pro	Gly	Leu	Arg	Val	Ile	Ser										
	450					455											

<210> 335  
 <211> 834  
 <212> PRT  
 <213> Mus sp.

<400> 335

Met	Ala	Pro	His	Trp	Ala	Val	Trp	Leu	Leu	Ala	Ala	Gly	Leu	Trp	Gly		
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 <212> DNA  
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<400> 336

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<223> Unknown

<400> 337

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<210> 338

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<210> 339

<211> 348

<212> PRT

<213> Cricetulus griseus

<400> 339

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			20					25					30		
Cys	Arg	Ala	Leu	Val	Asp	Lys	Phe	Asn	Gln	Gly	Met	Ala	Asn	Thr	Ala
	35						40					45			
Arg	Lys	Asn	Phe	Gly	Gly	Gly	Asn	Thr	Ala	Trp	Glu	Glu	Lys	Ser	Leu
	50				55						60				
Ser	Lys	Tyr	Glu	Phe	Ser	Glu	Ile	Arg	Leu	Leu	Glu	Ile	Met	Glu	Gly
65					70					75					80
Leu	Cys	Asp	Ser	Asn	Asp	Phe	Glu	Cys	Asn	Gln	Leu	Leu	Glu	Gln	His
				85					90					95	
Glu	Glu	Gln	Leu	Glu	Ala	Trp	Trp	Gln	Thr	Leu	Lys	Lys	Glu	Cys	Pro
			100					105						110	
Asn	Leu	Phe	Glu	Trp	Phe	Cys	Val	His	Thr	Leu	Lys	Ala	Cys	Cys	Leu
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Arg	Pro	Cys	Ser	Gly	Asn	Gly	His	Cys	Asp	Gly	Asp	Gly	Ser	Arg	Gln
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Gly	Asp	Gly	Ser	Cys	Gln	Cys	His	Val	Gly	Tyr	Lys	Gly	Pro	Leu	Cys
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Ile	Asp	Cys	Met	Asp	Gly	Tyr	Phe	Ser	Leu	Leu	Arg	Asn	Glu	Thr	His
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Ser	Phe	Cys	Thr	Ala	Cys	Asp	Glu	Ser	Cys	Lys	Thr	Cys	Ser	Gly	Pro
	195						200					205			
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	210					215					220				
Asp	Ala	Cys	Val	Asp	Val	Asp	Glu	Cys	Ala	Ala	Glu	Thr	Pro	Pro	Cys
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			245						250					255	
Glu	Cys	Asp	Ser	Thr	Cys	Val	Gly	Cys	Thr	Gly	Lys	Gly	Pro	Ala	Asn
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Cys	Lys	Glu	Cys	Ile	Ser	Gly	Tyr	Ser	Lys	Gln	Lys	Gly	Glu	Cys	Ala
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Asp	Ile	Asp	Glu	Cys	Ser	Leu	Glu	Thr	Lys	Val	Cys	Lys	Lys	Glu	Asn
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Glu	Asn	Cys	Tyr	Asn	Thr	Pro	Gly	Ser	Phe	Val	Cys	Val	Cys	Pro	Glu
305					310					315					320
Gly	Phe	Glu	Glu	Asp	Arg	Arg	Cys	Leu	Cys	Thr	Asp	Ser	Arg	Arg	Arg
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<211> 1399

<212> DNA

<213> Cricetulus griseus

<400> 340

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<211> 528
<212> PRT
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Arg Ala Phe Arg Val Arg Ile Ala Gly Asp Ala Pro Leu Gln Gly Val
 35          40          45
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 50          55          60
Pro Pro Ser Arg Arg Ala Val Leu Gly Ser Pro Arg Val Lys Trp Thr
 65          70          75          80
Phe Leu Ser Arg Gly Arg Glu Ala Glu Val Leu Val Ala Arg Gly Val
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Arg Val Lys Val Asn Glu Ala Tyr Arg Phe Arg Val Ala Leu Pro Ala
100          105          110
Tyr Pro Ala Ser Leu Thr Asp Val Ser Leu Ala Leu Ser Glu Leu Arg
115          120          125
Pro Asn Asp Ser Gly Ile Tyr Arg Cys Glu Val Gln His Gly Ile Asp
130          135          140
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145          150          155          160
Pro Arg Glu Ala Cys Tyr Gly Asp Met Asp Gly Phe Pro Gly Val Arg
165          170          175
Asn Tyr Gly Val Val Asp Pro Asp Asp Leu Tyr Asp Val Tyr Cys Tyr
180          185          190
Ala Glu Asp Leu Asn Gly Glu Leu Phe Leu Gly Asp Pro Pro Glu Lys
195          200          205
Leu Thr Leu Glu Glu Ala Arg Ala Tyr Cys Gln Glu Arg Gly Ala Glu
210          215          220

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		275					280					285			
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	290					295					300				
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Val	Thr	Val	Thr	Glu	Thr	Leu	Glu	Glu	Leu	Gln	Leu	Pro	Gln	Glu	Ala
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Thr	Glu	Ser	Glu	Ser	Arg	Gly	Ala	Ile	Tyr	Ser	Ile	Pro	Ile	Met	Glu
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Arg	Thr	Leu	Leu	Glu	Phe	Glu	Thr	Gln	Ser	Met	Val	Pro	Pro	Thr	Gly
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Asp	Glu	Glu	Glu	Lys	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Val	Glu	Asp
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Glu	Ala	Leu	Trp	Ala	Trp	Pro	Ser	Glu	Leu	Ser	Ser	Pro	Gly	Pro	Glu
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Glu	Thr	Leu	Pro	Thr	Pro	Arg	Glu	Arg	Asn	Leu	Ala	Ser	Pro	Ser	Pro
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Ser	Thr	Leu	Val	Glu	Ala	Arg	Glu	Val	Gly	Glu	Ala	Thr	Gly	Gly	Pro
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 <212> PRT  
 <213> Mus sp.

<400> 342  
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 Arg Ala Phe Arg Val Arg Ile Gly Ala Ala Gln Leu Arg Gly Val Leu  
 35 40 45  
 Gly Gly Ala Leu Ala Ile Pro Cys His Val His His Leu Arg Pro Pro  
 50 55 60  
 Arg Ser Arg Arg Ala Ala Pro Gly Phe Pro Arg Val Lys Trp Thr Phe  
 65 70 75 80  
 Leu Ser Gly Asp Arg Glu Val Glu Val Leu Val Ala Arg Gly Leu Arg

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Pro	Ala	Ser	Leu	Thr	Asp	Val	Ser	Leu	Val	Leu	Ser	Glu	Leu	Arg	Pro
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Asn	Asp	Ser	Gly	Val	Tyr	Arg	Cys	Glu	Val	Gln	His	Gly	Ile	Asp	Asp
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Ser	Ser	Asp	Ala	Val	Glu	Val	Lys	Val	Lys	Gly	Val	Val	Phe	Leu	Tyr
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Ala	Cys	Ala	Arg	Ile	Gly	Ala	Arg	Ile	Ala	Thr	Pro	Glu	Gln	Leu	Tyr
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Ala	Ala	Tyr	Leu	Gly	Gly	Tyr	Glu	Gln	Cys	Asp	Ala	Gly	Trp	Leu	Ser
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Gly	Asp	Met	Asp	Gly	Tyr	Pro	Gly	Val	Arg	Asn	Tyr	Gly	Val	Val	Gly
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Pro	Asp	Asp	Leu	Tyr	Asp	Val	Tyr	Cys	Tyr	Ala	Glu	Asp	Leu	Asn	Gly
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Glu	Leu	Phe	Leu	Gly	Ala	Pro	Pro	Ser	Lys	Leu	Thr	Trp	Glu	Glu	Ala
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Arg	Asp	Tyr	Cys	Leu	Glu	Arg	Gly	Ala	Gln	Ile	Ala	Ser	Thr	Gly	Gln
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Leu	Tyr	Ala	Ala	Trp	Asn	Gly	Gly	Leu	Asp	Arg	Cys	Ser	Pro	Gly	Trp
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Leu	Ala	Asp	Gly	Ser	Val	Arg	Tyr	Pro	Ile	Ile	Thr	Pro	Ser	Gln	Arg
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Cys	Gly	Gly	Gly	Leu	Pro	Gly	Val	Lys	Thr	Leu	Phe	Leu	Phe	Pro	Asn
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Gln	Thr	Gly	Phe	Pro	Ser	Lys	Gln	Asn	Arg	Phe	Asn	Val	Tyr	Cys	Phe
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Ser	Asp	Gly	Leu	Glu	Ala	Ile	Val	Thr	Val	Thr	Glu	Lys	Leu	Glu	Glu
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Leu	Gln	Leu	Pro	Gln	Glu	Ala	Met	Glu	Ser	Glu	Ser	Arg	Gly	Ala	Ile
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Glu	Asp	Pro	Ala	Glu	Ala	Pro	Arg	Thr	Pro	Leu	Glu	Ser	Glu	Thr	Gln
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			485						490			495			
Ala	Gln	Ala	Val	Leu	Gln	Leu	Asp	Ala	Ser	Pro	Ser	Pro	Gly	Pro	Pro

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 Ser Ser Ser Leu Glu Asp Gly Pro Ser Leu Leu Pro Ala Thr Trp Ala  
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 Pro Val Gly Pro Arg Glu Leu Glu Thr Pro Ser Glu Glu Lys Ser Gly  
 580 585 590  
 Arg Thr Val Leu Ala Gly Thr Ser Val Gln Ala Gln Pro Val Leu Pro  
 595 600 605  
 Thr Asp Ser Ala Ser His Gly Gly Val Ala Val Ala Pro Ser Ser Gly  
 610 615 620  
 Asp Cys Ile Pro Ser Pro Cys His Asn Gly Gly Thr Cys Leu Glu Glu  
 625 630 635 640  
 Lys Glu Gly Phe Arg Cys Leu Cys Leu Pro Gly Tyr Gly Gly Asp Leu  
 645 650 655  
 Cys Asp Val Gly Leu His Phe Cys Ser Pro Gly Trp Glu Ala Phe Gln  
 660 665 670  
 Gly Ala Cys Tyr Lys His Phe Ser Thr Arg Arg Ser Trp Glu Glu Ala  
 675 680 685  
 Glu Ser Gln Cys Arg Ala Leu Gly Ala His Leu Thr Ser Ile Cys Thr  
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 Pro Glu Glu Gln Asp Phe Val Asn Asp Arg Tyr Arg Glu Tyr Gln Trp  
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 Ile Gly Leu Asn Asp Arg Thr Ile Glu Gly Asp Phe Leu Trp Ser Asp  
 725 730 735  
 Gly Ala Pro Leu Leu Tyr Glu Asn Trp Asn Pro Gly Gln Pro Asp Ser  
 740 745 750  
 Tyr Phe Leu Ser Gly Glu Asn Cys Val Val Met Val Trp His Asp Gln  
 755 760 765  
 Gly Gln Trp Ser Asp Val Pro Cys Asn Tyr His Leu Ser Tyr Thr Cys  
 770 775 780  
 Lys Met Gly Leu Val Ser Cys Gly Pro Pro Pro Gln Leu Pro Leu Ala  
 785 790 795 800  
 Gln Ile Phe Gly Arg Pro Arg Leu Arg Tyr Ala Val Asp Thr Val Leu  
 805 810 815  
 Arg Tyr Arg Cys Arg Asp Gly Leu Ala Gln Arg Asn Leu Pro Leu Ile  
 820 825 830  
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 835 840 845  
 Pro Arg Arg Pro Gly Arg Ala Leu Arg Ser Met Asp Ala Pro Glu Gly  
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 Ser Ser Leu

<210> 343  
 <211> 3153  
 <212> DNA  
 <213> Mus sp.  
  
 <220>  
 <221> misc\_feature  
 <222> (1)...(3153)  
 <223> n = A,T,C or G  
  
 <400> 343



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<210> 351

<211> 2002

<212> DNA

<213> Gerbil

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2002

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<210> 352
<211> 675
<212> DNA
<213> Gerbil

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gcaagcatct ttatgcaccg tcgctccta tacaatagat ttgatttaga actcttcact 180
cccggaacc tggagagaga gtgctatgag gagttctgta gttatgaaga agccagagag 240
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gaggacgcgg gactaccttc ctatgaacag gcagtagctc tgaccagaaa acacagtgtc 600
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<210> 353

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<211> 225  
 <212> PRT  
 <213> Gerbil

<400> 353  
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 20 25 30  
 Gly Val Phe Ala Ser Lys Lys Ala Ala Ser Ile Phe Met His Arg Arg  
 35 40 45  
 Leu Leu Tyr Asn Arg Phe Asp Leu Glu Leu Phe Thr Pro Gly Asn Leu  
 50 55 60  
 Glu Arg Glu Cys Tyr Glu Glu Phe Cys Ser Tyr Glu Glu Ala Arg Glu  
 65 70 75 80  
 Ile Leu Gly Asp Asn Glu Glu Met Ile Thr Phe Trp Arg Glu Tyr Ser  
 85 90 95  
 Val Lys Gly Pro Thr Thr Arg Ser Asp Val Asn Lys Glu Lys Ile Asp  
 100 105 110  
 Val Met Gly Leu Leu Thr Gly Leu Ile Ala Ala Gly Val Phe Leu Val  
 115 120 125  
 Val Phe Gly Leu Leu Gly Tyr Tyr Leu Cys Ile Thr Lys Cys Asn Arg  
 130 135 140  
 Gln Pro Tyr Gln Gly Ser Ser Ala Val Tyr Thr Arg Arg Thr Arg His  
 145 150 155 160  
 Thr Pro Ser Ile Ile Phe Arg Thr His Glu Glu Ala Val Leu Ser Pro  
 165 170 175  
 Ser Ser Ser Ser Glu Asp Ala Gly Leu Pro Ser Tyr Glu Gln Ala Val  
 180 185 190  
 Ala Leu Thr Arg Lys His Ser Val Ser Pro Pro Pro Pro Tyr Pro Gly  
 195 200 205  
 Pro Ala Lys Gly Phe Arg Val Phe Lys Lys Ser Met Ser Leu Pro Ser  
 210 215 220  
 His  
 225

<210> 354  
 <211> 17  
 <212> PRT  
 <213> Gerbil

<400> 354  
 Met Phe Leu Leu Leu Val Val Leu Ser Gln Leu Pro Arg Leu Thr Leu  
 1 5 10 15  
 Ala

<210> 355  
 <211> 208  
 <212> PRT  
 <213> Gerbil

<400> 355  
 Val Pro His Thr Arg Ser Leu Lys Asn Ser Glu His Ala Pro Glu Gly  
 1 5 10 15

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			20					25					30		
Leu	Tyr	Asn	Arg	Phe	Asp	Leu	Glu	Leu	Phe	Thr	Pro	Gly	Asn	Leu	Glu
		35					40					45			
Arg	Glu	Cys	Tyr	Glu	Glu	Phe	Cys	Ser	Tyr	Glu	Glu	Ala	Arg	Glu	Ile
		50				55					60				
Leu	Gly	Asp	Asn	Glu	Glu	Met	Ile	Thr	Phe	Trp	Arg	Glu	Tyr	Ser	Val
65					70					75					80
Lys	Gly	Pro	Thr	Thr	Arg	Ser	Asp	Val	Asn	Lys	Glu	Lys	Ile	Asp	Val
				85					90					95	
Met	Gly	Leu	Leu	Thr	Gly	Leu	Ile	Ala	Ala	Gly	Val	Phe	Leu	Val	Val
			100					105					110		
Phe	Gly	Leu	Leu	Gly	Tyr	Tyr	Leu	Cys	Ile	Thr	Lys	Cys	Asn	Arg	Gln
		115					120					125			
Pro	Tyr	Gln	Gly	Ser	Ser	Ala	Val	Tyr	Thr	Arg	Arg	Thr	Arg	His	Thr
		130				135					140				
Pro	Ser	Ile	Ile	Phe	Arg	Thr	His	Glu	Glu	Ala	Val	Leu	Ser	Pro	Ser
145					150					155					160
Ser	Ser	Ser	Glu	Asp	Ala	Gly	Leu	Pro	Ser	Tyr	Glu	Gln	Ala	Val	Ala
				165					170					175	
Leu	Thr	Arg	Lys	His	Ser	Val	Ser	Pro	Pro	Pro	Pro	Tyr	Pro	Gly	Pro
			180					185					190		
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<210> 356  
 <211> 95  
 <212> PRT  
 <213> Gerbil

<400> 356
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Val Phe Ala Ser Lys Lys Ala Ala Ser Ile Phe Met His Arg Arg Leu
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Leu Tyr Asn Arg Phe Asp Leu Glu Leu Phe Thr Pro Gly Asn Leu Glu
35 40 45
Arg Glu Cys Tyr Glu Glu Phe Cys Ser Tyr Glu Glu Ala Arg Glu Ile
50 55 60
Leu Gly Asp Asn Glu Glu Met Ile Thr Phe Trp Arg Glu Tyr Ser Val
65 70 75 80
Lys Gly Pro Thr Thr Arg Ser Asp Val Asn Lys Glu Lys Ile Asp
85 90 95

<210> 357  
 <211> 25  
 <212> PRT  
 <213> Gerbil

<400> 357
Val Met Gly Leu Leu Thr Gly Leu Ile Ala Ala Gly Val Phe Leu Val
1 5 10 15
Val Phe Gly Leu Leu Gly Tyr Tyr Leu
20 25

<210> 358  
 <211> 88  
 <212> PRT  
 <213> Gerbil

<400> 358  
 Cys Ile Thr Lys Cys Asn Arg Gln Pro Tyr Gln Gly Ser Ser Ala Val  
 1 5 10 15  
 Tyr Thr Arg Arg Thr Arg His Thr Pro Ser Ile Ile Phe Arg Thr His  
 20 25 30  
 Glu Glu Ala Val Leu Ser Pro Ser Ser Ser Glu Asp Ala Gly Leu  
 35 40 45  
 Pro Ser Tyr Glu Gln Ala Val Ala Leu Thr Arg Lys His Ser Val Ser  
 50 55 60  
 Pro Pro Pro Pro Tyr Pro Gly Pro Ala Lys Gly Phe Arg Val Phe Lys  
 65 70 75 80  
 Lys Ser Met Ser Leu Pro Ser His  
 85

<210> 359

<220>  
 <223> Unknown

<400> 359  
 000

<210> 360

<220>  
 <223> Unknown

<400> 360  
 000

<210> 361

<220>  
 <223> Unknown

<400> 361  
 000

<210> 362  
 <211> 962  
 <212> DNA  
 <213> Mus sp.

<400> 362  
 ccgtttctct ttaaccactt gcacggctctg gggtttaaccc gcctgcggac tctggacctc 60  
 tcctccaact ggctgaaaca tatctccatc cctgagttgg ctgcactgcc aacttatctc 120  
 aagaacaggc tctacctgca caacaacccg ctgccctgtg actgcagcct ctaccacctg 180  
 ctccggcgct ggcaccagcg gggcctgagt gccctgcatg attttgaacg cgagtacaca 240  
 tgcttggtct ttaaggtgtc agagtcccga gtgcgctttt ttgagcacag ccgggtcttc 300  
 aagaactgct ctgtggctgc agctccaggc ttagagctgc ctgaagagca gctgcacgcg 360

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caggtggggcc agtccctgag gctcttctgc aacaccagtg tgcctgccac tcgggtggcc 420
tggttctccc cgaagaatga gctgcttggt gcgccagcct ctcaggatgg tagcatcgct 480
gtgttggtctg atggcagctt agccataggg aggggtgcaag agcagcacgc aggcgtcttt 540
gtgtgcctgg ccagtggggc ccgcctgcac cacaaccaga cacttgagta caatgtgagt 600
gtgcaaaagg ctgcctccga gccagagact ttcaacacag gctttaccac cctgctgggc 660
tgtattgtgg gcctggtgct ggtgttgctc tacttgtttg caccaccctg tcgtggctgc 720
tgtcactgct gtcagcgggc ctgccgcaac cgttgctggc cccgggcatc cagtccactc 780
caggagctga gcgcacagtc ctccatgctt agcactacgc caccagatgc acccagccgc 840
aaggccagtg tccacaagca tgtggtcttc ctggagccgg gcaagaaggg cctcaatggc 900
cgtgtgcagc tcgcagtacc tccagactcc gatctgtgca accccatggg cttgcaactc 960
aa 962

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<210> 363  
 <211> 320  
 <212> PRT  
 <213> Mus sp.

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<400> 363
Pro Phe Leu Phe Asn His Leu His Gly Leu Gly Leu Thr Arg Leu Arg
1      5      10      15
Thr Leu Asp Leu Ser Ser Asn Trp Leu Lys His Ile Ser Ile Pro Glu
20      25      30
Leu Ala Ala Leu Pro Thr Tyr Leu Lys Asn Arg Leu Tyr Leu His Asn
35      40      45
Asn Pro Leu Pro Cys Asp Cys Ser Leu Tyr His Leu Leu Arg Arg Trp
50      55      60
His Gln Arg Gly Leu Ser Ala Leu His Asp Phe Glu Arg Glu Tyr Thr
65      70      75      80
Cys Leu Val Phe Lys Val Ser Glu Ser Arg Val Arg Phe Phe Glu His
85      90      95
Ser Arg Val Phe Lys Asn Cys Ser Val Ala Ala Ala Pro Gly Leu Glu
100     105     110
Leu Pro Glu Glu Gln Leu His Ala Gln Val Gly Gln Ser Leu Arg Leu
115     120     125
Phe Cys Asn Thr Ser Val Pro Ala Thr Arg Val Ala Trp Val Ser Pro
130     135     140
Lys Asn Glu Leu Leu Val Ala Pro Ala Ser Gln Asp Gly Ser Ile Ala
145     150     155     160
Val Leu Ala Asp Gly Ser Leu Ala Ile Gly Arg Val Gln Glu Gln His
165     170     175
Ala Gly Val Phe Val Cys Leu Ala Ser Gly Pro Arg Leu His His Asn
180     185     190
Gln Thr Leu Glu Tyr Asn Val Ser Val Gln Lys Ala Arg Pro Glu Pro
195     200     205
Glu Thr Phe Asn Thr Gly Phe Thr Thr Leu Leu Gly Cys Ile Val Gly
210     215     220
Leu Val Leu Val Leu Leu Tyr Leu Phe Ala Pro Pro Cys Arg Gly Cys
225     230     235     240
Cys His Cys Cys Gln Arg Ala Cys Arg Asn Arg Cys Trp Pro Arg Ala
245     250     255
Ser Ser Pro Leu Gln Glu Leu Ser Ala Gln Ser Ser Met Leu Ser Thr
260     265     270
Thr Pro Pro Asp Ala Pro Ser Arg Lys Ala Ser Val His Lys His Val
275     280     285
Val Phe Leu Glu Pro Gly Lys Lys Gly Leu Asn Gly Arg Val Gln Leu
290     295     300
Ala Val Pro Pro Asp Ser Asp Leu Cys Asn Pro Met Gly Leu Gln Leu

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305

310

315

320

<210> 364  
 <211> 16  
 <212> PRT  
 <213> Mus sp.

<400> 364  
 Pro Phe Leu Phe Asn His Leu His Gly Leu Gly Leu Thr Arg Leu Arg  
 1 5 10 15

<210> 365  
 <211> 304  
 <212> PRT  
 <213> Mus sp.

<400> 365  
 Thr Leu Asp Leu Ser Ser Asn Trp Leu Lys His Ile Ser Ile Pro Glu  
 1 5 10 15  
 Leu Ala Ala Leu Pro Thr Tyr Leu Lys Asn Arg Leu Tyr Leu His Asn  
 20 25 30  
 Asn Pro Leu Pro Cys Asp Cys Ser Leu Tyr His Leu Leu Arg Arg Trp  
 35 40 45  
 His Gln Arg Gly Leu Ser Ala Leu His Asp Phe Glu Arg Glu Tyr Thr  
 50 55 60  
 Cys Leu Val Phe Lys Val Ser Glu Ser Arg Val Arg Phe Phe Glu His  
 65 70 75 80  
 Ser Arg Val Phe Lys Asn Cys Ser Val Ala Ala Pro Gly Leu Glu  
 85 90 95  
 Leu Pro Glu Glu Gln Leu His Ala Gln Val Gly Gln Ser Leu Arg Leu  
 100 105 110  
 Phe Cys Asn Thr Ser Val Pro Ala Thr Arg Val Ala Trp Val Ser Pro  
 115 120 125  
 Lys Asn Glu Leu Leu Val Ala Pro Ala Ser Gln Asp Gly Ser Ile Ala  
 130 135 140  
 Val Leu Ala Asp Gly Ser Leu Ala Ile Gly Arg Val Gln Glu Gln His  
 145 150 155 160  
 Ala Gly Val Phe Val Cys Leu Ala Ser Gly Pro Arg Leu His His Asn  
 165 170 175  
 Gln Thr Leu Glu Tyr Asn Val Ser Val Gln Lys Ala Arg Pro Glu Pro  
 180 185 190  
 Glu Thr Phe Asn Thr Gly Phe Thr Thr Leu Leu Gly Cys Ile Val Gly  
 195 200 205  
 Leu Val Leu Val Leu Leu Tyr Leu Phe Ala Pro Pro Cys Arg Gly Cys  
 210 215 220  
 Cys His Cys Cys Gln Arg Ala Cys Arg Asn Arg Cys Trp Pro Arg Ala  
 225 230 235 240  
 Ser Ser Pro Leu Gln Glu Leu Ser Ala Gln Ser Ser Met Leu Ser Thr  
 245 250 255  
 Thr Pro Pro Asp Ala Pro Ser Arg Lys Ala Ser Val His Lys His Val  
 260 265 270  
 Val Phe Leu Glu Pro Gly Lys Lys Gly Leu Asn Gly Arg Val Gln Leu  
 275 280 285  
 Ala Val Pro Pro Asp Ser Asp Leu Cys Asn Pro Met Gly Leu Gln Leu  
 290 295 300



<210> 366  
 <211> 197  
 <212> PRT  
 <213> Mus sp.

<400> 366  
 Thr Leu Asp Leu Ser Ser Asn Trp Leu Lys His Ile Ser Ile Pro Glu  
 1 5 10 15  
 Leu Ala Ala Leu Pro Thr Tyr Leu Lys Asn Arg Leu Tyr Leu His Asn  
 20 25 30  
 Asn Pro Leu Pro Cys Asp Cys Ser Leu Tyr His Leu Leu Arg Arg Trp  
 35 40 45  
 His Gln Arg Gly Leu Ser Ala Leu His Asp Phe Glu Arg Glu Tyr Thr  
 50 55 60  
 Cys Leu Val Phe Lys Val Ser Glu Ser Arg Val Arg Phe Phe Glu His  
 65 70 75 80  
 Ser Arg Val Phe Lys Asn Cys Ser Val Ala Ala Pro Gly Leu Glu  
 85 90 95  
 Leu Pro Glu Glu Gln Leu His Ala Gln Val Gly Gln Ser Leu Arg Leu  
 100 105 110  
 Phe Cys Asn Thr Ser Val Pro Ala Thr Arg Val Ala Trp Val Ser Pro  
 115 120 125  
 Lys Asn Glu Leu Leu Val Ala Pro Ala Ser Gln Asp Gly Ser Ile Ala  
 130 135 140  
 Val Leu Ala Asp Gly Ser Leu Ala Ile Gly Arg Val Gln Glu Gln His  
 145 150 155 160  
 Ala Gly Val Phe Val Cys Leu Ala Ser Gly Pro Arg Leu His His Asn  
 165 170 175  
 Gln Thr Leu Glu Tyr Asn Val Ser Val Gln Lys Ala Arg Pro Glu Pro  
 180 185 190  
 Glu Thr Phe Asn Thr  
 195

<210> 367  
 <211> 20  
 <212> PRT  
 <213> Mus sp.

<400> 367  
 Gly Phe Thr Thr Leu Leu Gly Cys Ile Val Gly Leu Val Leu Val Leu  
 1 5 10 15  
 Leu Tyr Leu Phe  
 20

<210> 368  
 <211> 87  
 <212> PRT  
 <213> Mus sp.

<400> 368  
 Ala Pro Pro Cys Arg Gly Cys Cys His Cys Cys Gln Arg Ala Cys Arg  
 1 5 10 15  
 Asn Arg Cys Trp Pro Arg Ala Ser Ser Pro Leu Gln Glu Leu Ser Ala

		20						25						30					
Gln	Ser	Ser	Met	Leu	Ser	Thr	Thr	Pro	Pro	Asp	Ala	Pro	Ser	Arg	Lys				
		35					40					45							
Ala	Ser	Val	His	Lys	His	Val	Val	Phe	Leu	Glu	Pro	Gly	Lys	Lys	Gly				
	50					55					60								
Leu	Asn	Gly	Arg	Val	Gln	Leu	Ala	Val	Pro	Pro	Asp	Ser	Asp	Leu	Cys				
65					70					75					80				
Asn	Pro	Met	Gly	Leu	Gln	Leu													
					85														

<210> 369  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> PCR primer

<400> 369  
 attattcaga aggatgtccc gtgg 24

<210> 370  
 <211> 23  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> PCR primer

<400> 370  
 cctcctgatt acctacaatg gtc 23

<210> 371  
 <211> 1656  
 <212> DNA  
 <213> Homo sapiens

<400> 371  
 gtcgacccac gcgtccgccc acgcgtccgg cccatggcgc cgcccgccgc ccgcctcgcc 60  
 ctgctctccg ccgcggcgct cagcgtggcg gcccgccccg cgccctagccc cggcctcggc 120  
 cccggacccg agtgtttcac agccaatggg gcggattata ggggaacaca gaactggaca 180  
 gcaactacaag gcgggaagcc atgtctgttt tggaaacgaga ctttccagca tccatacaac 240  
 actctgaaat accccaacgg ggaggggggc ctgggtgagc acaactattg cagaaatcca 300  
 gatggagacg tgagcccctg gtgctatgtg gcagagcacg aggatgggtg ctactggaag 360  
 tactgtgaga tacctgcttg ccagatgcct ggaaaccttg gctgctacaa ggatcatgga 420  
 aaccacacctc ctctaactgg caccagtaaa acgtccaaca aactcaccat acaaacttgc 480  
 atcagttttt gtcggagtcg gaggttcaag tttgctggga tggagtcagg ctatgcttgc 540  
 ttctgtggaa acaatcctga ttactggaag tacggggagg cagccagtac cgaatgcaac 600  
 agcgtctgct tcgggggatca caccacaccc tgtggtggcg atggcaggat catcctcttt 660  
 gatactctcg tgggcgcctg cgggtgggaac tactcagcca tgtcttctgt ggtctattcc 720  
 cctgacttcc ccgacaccta tgccacgggg aggggtctgct actggacat ccgggttccg 780  
 ggggcctccc acatccactt cagcttcccc ctatttgaca tcagggactc ggccggacatg 840  
 gtggagcttc tggatggcta caccacacgt gtcctagccc gcttccacgg gaggagccgc 900  
 ccacctctgt ccttcaacgt ctctctggac ttctctatct tgtatttctt ctctgatcgc 960  
 atcaatcagg ccaggggatt tgctgtttta taccaagccg tcaaggaaga actgccacag 1020  
 gagaggcccc ctgtcaacca gacggtggcc gaggtgatca cggagcaggc caacctcagt 1080

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gtcagcgctg cccggtcctc caaagtcctc tatgtcatca ccaccagccc cagccacca 1140
cctcagactg tcccaggtag caattcctgg gcgccacca tgggggctgg aagccacaga 1200
gttgaaggat ggacagtcta tggctctggc actctcctca tcctcacagt cacagccatt 1260
gtagcaaaga tacttctgca cgtcacattc aaatcccatc gtgttcctgc ttcaggggac 1320
cttagggatt gtcatcaacc agggacttcg ggggaaatct ggagcatttt ttacaagcct 1380
tccacttcaa tttccatctt taagaagaaa ctcaagggtc agagtcaaca agatgaccgc 1440
aatcccttg tgagtgacta aaaacccac tgtgcctagg acttgaggtc cctctttgag 1500
ctcaaggctg ccgtggtcaa cctctcctgt ggttcttctc tgacagactc ttccctctc 1560
tcctctgccc tcggcctctt cggggaaacc ctctctctac agactaggaa gaggcacctg 1620
ctgccagggc aggcagagcc tggattcctc ctgctt 1656

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<210> 372

<211> 1425

<212> DNA

<213> Homo sapiens

<400> 372

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cggcccgccg ctagccccgg cctcgccccc ggacccgagt gtttcacagc caatgggtgc 120
gattataggg gaacacagaa ctggacagca ctacaaggcg ggaagccatg tctgttttgg 180
aacgagactt tccagcatcc atacaacact ctgaaatacc ccaacgggga ggggggcctg 240
ggtagcagca actattgcag aaatccagat ggagacgtga gccctgggtg ctatgtggca 300
gagcacgagg atggtgtcta ctggaagtac tgtgagatac ctgcttgcca gatgcctgga 360
aaccttggct gctacaagga tcatggaaac ccacctctc taactggcac cagtaaaacg 420
tccaacaaac tcaccataca aacttgcac agtttttgtc ggagtcagag gttcaagttt 480
gctgggatgg agtcaggcta tgcttgcttc tgtggaacaa atcctgatta ctggaagtac 540
ggggaggcag ccagtaccga atgcaacagc gtctgcttcg gggatcacac ccaaccctgt 600
ggtggcgatg gcaggatcat cctctttgat actctcgtgg gcgcctgcgg tgggaactac 660
tcagccatgt cttctgtggt ctattccctt gacttccccg acacctatgc cacggggagg 720
gtctgtact ggaccatccg ggttccgggg gcctcccaca tccacttcag cttcccccta 780
tttgacatca gggactcggc ggacatggtg gagcttctgg atggctacac ccaccgtgtc 840
ctagcccgtt tccacgggag gagccgcca cctctgtcct tcaacgtctc tctggacttc 900
gtcatcttgt atttcttctc tgatcgcatc aatcaggccc agggatttgc tgttttatac 960
caagccgtca aggaagaact gccacaggag agggccgctg tcaaccagac ggtggccgag 1020
gtgatcacgg agcaggccaa cctcagtgtc agcgtgccc ggtcctcaa agtcctctat 1080
gtcatcacca ccagccccag ccaccacact cagactgtcc caggtagcaa ttcctgggag 1140
ccaccatgg gggctggaag ccacagagtt gaaggatgga cagtctatgg tctggcaact 1200
ctcctcatcc tcacagtcac agccattgta gcaaagatac ttctgcacgt cacattcaaa 1260
tcccatcgtg ttctgtctt aggggacctt agggattgtc atcaaccagg gacttcgggg 1320
gaaatctgga gcatttttta caagccttc acttcaattt ccatctttaa gaagaaactc 1380
aagggtcaga gtcaacaaga tgaccgcaat ccccttgtga gtgac 1425

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<210> 373

<211> 475

<212> PRT

<213> Homo sapiens

<400> 373

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Met Ala Pro Pro Ala Ala Arg Leu Ala Leu Leu Ser Ala Ala Ala Leu
 1           5           10          15
Thr Leu Ala Ala Arg Pro Ala Pro Ser Pro Gly Leu Gly Pro Gly Pro
          20          25          30
Glu Cys Phe Thr Ala Asn Gly Ala Asp Tyr Arg Gly Thr Gln Asn Trp
          35          40          45
Thr Ala Leu Gln Gly Gly Lys Pro Cys Leu Phe Trp Asn Glu Thr Phe
          50          55          60
Gln His Pro Tyr Asn Thr Leu Lys Tyr Pro Asn Gly Glu Gly Gly Leu

```

65					70					75				80
Gly	Glu	His	Asn	Tyr	Cys	Arg	Asn	Pro	Asp	Gly	Asp	Val	Ser	Pro Trp
				85					90				95	
Cys	Tyr	Val	Ala	Glu	His	Glu	Asp	Gly	Val	Tyr	Trp	Lys	Tyr	Cys Glu
			100					105					110	
Ile	Pro	Ala	Cys	Gln	Met	Pro	Gly	Asn	Leu	Gly	Cys	Tyr	Lys	Asp His
		115					120					125		
Gly	Asn	Pro	Pro	Pro	Leu	Thr	Gly	Thr	Ser	Lys	Thr	Ser	Asn	Lys Leu
	130					135					140			
Thr	Ile	Gln	Thr	Cys	Ile	Ser	Phe	Cys	Arg	Ser	Gln	Arg	Phe	Lys Phe
145					150					155				160
Ala	Gly	Met	Glu	Ser	Gly	Tyr	Ala	Cys	Phe	Cys	Gly	Asn	Asn	Pro Asp
			165						170					175
Tyr	Trp	Lys	Tyr	Gly	Glu	Ala	Ala	Ser	Thr	Glu	Cys	Asn	Ser	Val Cys
			180					185					190	
Phe	Gly	Asp	His	Thr	Gln	Pro	Cys	Gly	Gly	Asp	Gly	Arg	Ile	Ile Leu
	195						200					205		
Phe	Asp	Thr	Leu	Val	Gly	Ala	Cys	Gly	Gly	Asn	Tyr	Ser	Ala	Met Ser
210					215					220				
Ser	Val	Val	Tyr	Ser	Pro	Asp	Phe	Pro	Asp	Thr	Tyr	Ala	Thr	Gly Arg
225					230					235				240
Val	Cys	Tyr	Trp	Thr	Ile	Arg	Val	Pro	Gly	Ala	Ser	His	Ile	His Phe
				245					250					255
Ser	Phe	Pro	Leu	Phe	Asp	Ile	Arg	Asp	Ser	Ala	Asp	Met	Val	Glu Leu
			260					265					270	
Leu	Asp	Gly	Tyr	Thr	His	Arg	Val	Leu	Ala	Arg	Phe	His	Gly	Arg Ser
	275						280					285		
Arg	Pro	Pro	Leu	Ser	Phe	Asn	Val	Ser	Leu	Asp	Phe	Val	Ile	Leu Tyr
	290					295					300			
Phe	Phe	Ser	Asp	Arg	Ile	Asn	Gln	Ala	Gln	Gly	Phe	Ala	Val	Leu Tyr
305					310					315				320
Gln	Ala	Val	Lys	Glu	Glu	Leu	Pro	Gln	Glu	Arg	Pro	Ala	Val	Asn Gln
				325					330					335
Thr	Val	Ala	Glu	Val	Ile	Thr	Glu	Gln	Ala	Asn	Leu	Ser	Val	Ser Ala
			340					345					350	
Ala	Arg	Ser	Ser	Lys	Val	Leu	Tyr	Val	Ile	Thr	Thr	Ser	Pro	Ser His
	355						360					365		
Pro	Pro	Gln	Thr	Val	Pro	Gly	Ser	Asn	Ser	Trp	Ala	Pro	Pro	Met Gly
	370					375					380			
Ala	Gly	Ser	His	Arg	Val	Glu	Gly	Trp	Thr	Val	Tyr	Gly	Leu	Ala Thr
385					390					395				400
Leu	Leu	Ile	Leu	Thr	Val	Thr	Ala	Ile	Val	Ala	Lys	Ile	Leu	Leu His
			405						410				415	
Val	Thr	Phe	Lys	Ser	His	Arg	Val	Pro	Ala	Ser	Gly	Asp	Leu	Arg Asp
			420					425					430	
Cys	His	Gln	Pro	Gly	Thr	Ser	Gly	Glu	Ile	Trp	Ser	Ile	Phe	Tyr Lys
	435						440					445		
Pro	Ser	Thr	Ser	Ile	Ser	Ile	Phe	Lys	Lys	Lys	Leu	Lys	Gly	Gln Ser
	450					455					460			
Gln	Gln	Asp	Asp	Arg	Asn	Pro	Leu	Val	Ser	Asp				
465					470					475				

<210> 374  
 <211> 19  
 <212> PRT  
 <213> Homo sapiens

<400> 374

Met Ala Pro Pro Ala Ala Arg Leu Ala Leu Leu Ser Ala Ala Ala Leu  
1 5 10 15  
Thr Leu Ala

<210> 375

<211> 456

<212> PRT

<213> Homo sapiens

<400> 375

Ala Arg Pro Ala Pro Ser Pro Gly Leu Gly Pro Gly Pro Glu Cys Phe  
1 5 10 15  
Thr Ala Asn Gly Ala Asp Tyr Arg Gly Thr Gln Asn Trp Thr Ala Leu  
20 25 30  
Gln Gly Gly Lys Pro Cys Leu Phe Trp Asn Glu Thr Phe Gln His Pro  
35 40 45  
Tyr Asn Thr Leu Lys Tyr Pro Asn Gly Glu Gly Gly Leu Gly Glu His  
50 55 60  
Asn Tyr Cys Arg Asn Pro Asp Gly Asp Val Ser Pro Trp Cys Tyr Val  
65 70 75 80  
Ala Glu His Glu Asp Gly Val Tyr Trp Lys Tyr Cys Glu Ile Pro Ala  
85 90 95  
Cys Gln Met Pro Gly Asn Leu Gly Cys Tyr Lys Asp His Gly Asn Pro  
100 105 110  
Pro Pro Leu Thr Gly Thr Ser Lys Thr Ser Asn Lys Leu Thr Ile Gln  
115 120 125  
Thr Cys Ile Ser Phe Cys Arg Ser Gln Arg Phe Lys Phe Ala Gly Met  
130 135 140  
Glu Ser Gly Tyr Ala Cys Phe Cys Gly Asn Asn Pro Asp Tyr Trp Lys  
145 150 155 160  
Tyr Gly Glu Ala Ala Ser Thr Glu Cys Asn Ser Val Cys Phe Gly Asp  
165 170 175  
His Thr Gln Pro Cys Gly Gly Asp Gly Arg Ile Ile Leu Phe Asp Thr  
180 185 190  
Leu Val Gly Ala Cys Gly Gly Asn Tyr Ser Ala Met Ser Ser Val Val  
195 200 205  
Tyr Ser Pro Asp Phe Pro Asp Thr Tyr Ala Thr Gly Arg Val Cys Tyr  
210 215 220  
Trp Thr Ile Arg Val Pro Gly Ala Ser His Ile His Phe Ser Phe Pro  
225 230 235 240  
Leu Phe Asp Ile Arg Asp Ser Ala Asp Met Val Glu Leu Leu Asp Gly  
245 250 255  
Tyr Thr His Arg Val Leu Ala Arg Phe His Gly Arg Ser Arg Pro Pro  
260 265 270  
Leu Ser Phe Asn Val Ser Leu Asp Phe Val Ile Leu Tyr Phe Phe Ser  
275 280 285  
Asp Arg Ile Asn Gln Ala Gln Gly Phe Ala Val Leu Tyr Gln Ala Val  
290 295 300  
Lys Glu Glu Leu Pro Gln Glu Arg Pro Ala Val Asn Gln Thr Val Ala  
305 310 315 320  
Glu Val Ile Thr Glu Gln Ala Asn Leu Ser Val Ser Ala Ala Arg Ser  
325 330 335  
Ser Lys Val Leu Tyr Val Ile Thr Thr Ser Pro Ser His Pro Pro Gln



Leu Ser Phe Asn Val Ser Leu Asp Phe Val Ile Leu Tyr Phe Phe Ser  
           275                          280                          285  
 Asp Arg Ile Asn Gln Ala Gln Gly Phe Ala Val Leu Tyr Gln Ala Val  
           290                          295                          300  
 Lys Glu Glu Leu Pro Gln Glu Arg Pro Ala Val Asn Gln Thr Val Ala  
 305                          310                          315                          320  
 Glu Val Ile Thr Glu Gln Ala Asn Leu Ser Val Ser Ala Ala Arg Ser  
                           325                          330                          335  
 Ser Lys Val Leu Tyr Val Ile Thr Thr Ser Pro Ser His Pro Pro Gln  
                           340                          345                          350  
 Thr Val Pro Gly Ser Asn Ser Trp Ala Pro Pro Met Gly Ala Gly Ser  
           355                          360                          365  
 His Arg Val Glu Gly  
           370

<210> 377  
 <211> 23  
 <212> PRT  
 <213> Homo sapiens

<400> 377  
 Trp Thr Val Tyr Gly Leu Ala Thr Leu Leu Ile Leu Thr Val Thr Ala  
   1                          5                          10                          15  
 Ile Val Ala Lys Ile Leu Leu  
                           20

<210> 378  
 <211> 60  
 <212> PRT  
 <213> Homo sapiens

<400> 378  
 His Val Thr Phe Lys Ser His Arg Val Pro Ala Ser Gly Asp Leu Arg  
   1                          5                          10                          15  
 Asp Cys His Gln Pro Gly Thr Ser Gly Glu Ile Trp Ser Ile Phe Tyr  
                           20                          25                          30  
 Lys Pro Ser Thr Ser Ile Ser Ile Phe Lys Lys Lys Leu Lys Gly Gln  
                           35                          40                          45  
 Ser Gln Gln Asp Asp Arg Asn Pro Leu Val Ser Asp  
           50                          55                          60

<210> 379  
 <211> 4628  
 <212> DNA  
 <213> Homo sapiens

<400> 379  
 gcggccgctc gcgatctaga actagtaatg atgctgcctc aaaactcgtg gcatattgat 60  
 tttggaagat gctgctgtca tcagaacctt ttctctgctg tggtaacttg catcctgctc 120  
 ctgaattcct gctttctcat cagcagtttt aatggaacag atttggagtt gaggctgggc 180  
 aatggagacg gtccctgctc tgggacagtg gaggtgaaat tccagggaca gtgggggact 240  
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<212> DNA

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1265		1270		1275
Glu Val Val Cys Gln Gln Leu Gly Cys Gly Ser Ala Leu Ala Ala Leu				
	1285		1290	1295
Arg Asp Ala Ser Phe Gly Gln Gly Thr Gly Thr Ile Trp Leu Asp Asp				
	1300		1305	1310
Met Arg Cys Lys Gly Asn Glu Ser Phe Leu Trp Asp Cys His Ala Lys				
	1315		1320	1325
Pro Trp Gly Gln Ser Asp Cys Gly His Lys Glu Asp Ala Gly Val Arg				
	1330		1335	1340
Cys Ser Gly Gln Ser Leu Lys Ser Leu Asn Ala Ser Ser Gly His Leu				
1345		1350		1355
Ala Leu Ile Leu Ser Ser Ile Phe Gly Leu Leu Leu Leu Val Leu Phe				
	1365		1370	1375
Ile Leu Phe Leu Thr Trp Cys Arg Val Gln Lys Gln Lys His Leu Pro				
	1380		1385	1390
Leu Arg Val Ser Thr Arg Arg Arg Gly Ser Leu Glu Glu Asn Leu Phe				
	1395		1400	1405
His Glu Met Glu Thr Cys Leu Lys Arg Glu Asp Pro His Gly Thr Arg				
	1410		1415	1420
Thr Ser Asp Asp Thr Pro Asn His Gly Cys Glu Asp Ala Ser Asp Thr				
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Ser Leu Leu Gly Val Leu Pro Ala Ser Glu Ala Thr Lys				1440
	1445		1450	

<210> 382  
 <211> 40  
 <212> PRT  
 <213> Homo sapiens

<400> 382  
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 Cys His Gln Asn Leu Phe Ser Ala Val Val Thr Cys Ile Leu Leu Leu  
 20 25 30  
 Asn Ser Cys Phe Leu Ile Ser Ser  
 35 40

<210> 383  
 <211> 1413  
 <212> PRT  
 <213> Homo sapiens

<400> 383  
 Phe Asn Gly Thr Asp Leu Glu Leu Arg Leu Val Asn Gly Asp Gly Pro  
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 Cys Ser Gly Thr Val Glu Val Lys Phe Gln Gly Gln Trp Gly Thr Val  
 20 25 30  
 Cys Asp Asp Gly Trp Asn Thr Thr Ala Ser Thr Val Val Cys Lys Gln  
 35 40 45  
 Leu Gly Cys Pro Phe Ser Phe Ala Met Phe Arg Phe Gly Gln Ala Val  
 50 55 60  
 Thr Arg His Gly Lys Ile Trp Leu Asp Asp Val Ser Cys Tyr Gly Asn  
 65 70 75 80  
 Glu Ser Ala Leu Trp Glu Cys Gln His Arg Glu Trp Gly Ser His Asn  
 85 90 95  
 Cys Tyr His Gly Glu Asp Val Gly Val Asn Cys Tyr Gly Glu Ala Asn  
 100 105 110  
 Leu Gly Leu Arg Leu Val Asp Gly Asn Asn Ser Cys Ser Gly Arg Val  
 115 120 125  
 Glu Val Lys Phe Gln Glu Arg Trp Gly Thr Ile Cys Asp Asp Gly Trp  
 130 135 140  
 Asn Leu Asn Thr Ala Ala Val Val Cys Arg Gln Leu Gly Cys Pro Ser  
 145 150 155 160  
 Ser Phe Ile Ser Ser Gly Val Val Asn Ser Pro Ala Val Leu Arg Pro  
 165 170 175  
 Ile Trp Leu Asp Asp Ile Leu Cys Gln Gly Asn Glu Leu Ala Leu Trp  
 180 185 190  
 Asn Cys Arg His Arg Gly Trp Gly Asn His Asp Cys Ser His Asn Glu  
 195 200 205  
 Asp Val Thr Leu Thr Cys Tyr Asp Ser Ser Asp Leu Glu Leu Arg Leu  
 210 215 220  
 Val Gly Gly Thr Asn Arg Cys Met Gly Arg Val Glu Leu Lys Ile Gln  
 225 230 235 240  
 Gly Arg Trp Gly Thr Val Cys His His Lys Trp Asn Asn Ala Ala Ala  
 245 250 255  
 Asp Val Val Cys Lys Gln Leu Gly Cys Gly Thr Ala Leu His Phe Ala  
 260 265 270  
 Gly Leu Pro His Leu Gln Ser Gly Ser Asp Val Val Trp Leu Asp Gly  
 275 280 285  
 Val Ser Cys Ser Gly Asn Glu Ser Phe Leu Trp Asp Cys Arg His Ser

290		295		300
Gly Thr Val Asn Phe Asp	Cys Leu His Gln Asn Asp	Val Ser Val Ile		
305	310	315		320
Cys Ser Asp Gly Ala Asp	Leu Glu Leu Arg Leu Ala Asp	Gly Ser Asn		
	325	330		335
Asn Cys Ser Gly Arg Val	Glu Val Arg Ile His Glu Gln Trp	Trp Thr		
	340	345		350
Ile Cys Asp Gln Asn Trp	Lys Asn Glu Gln Ala Leu Val	Val Cys Lys		
	355	360		365
Gln Leu Gly Cys Pro Phe	Ser Val Phe Gly Ser Arg Arg	Ala Lys Pro		
	370	375		380
Ser Asn Glu Ala Arg Asp	Ile Trp Ile Asn Ser Ile	Ser Cys Thr Gly		
385	390	395		400
Asn Glu Ser Ala Leu Trp	Asp Cys Thr Tyr Asp	Gly Lys Ala Lys Arg		
	405	410		415
Thr Cys Phe Arg Arg Ser	Asp Ala Gly Val Ile Cys	Ser Asp Lys Ala		
	420	425		430
Asp Leu Asp Leu Arg Leu	Val Gly Ala His Ser Pro	Cys Tyr Gly Arg		
	435	440		445
Leu Glu Val Lys Tyr Gln	Gly Glu Trp Gly Thr Val	Cys His Asp Arg		
	450	455		460
Trp Ser Thr Arg Asn Ala	Val Val Cys Lys Gln Leu	Gly Cys Gly		
465	470	475		480
Lys Pro Met His Val Phe	Gly Met Thr Tyr Phe	Lys Glu Ala Ser Gly		
	485	490		495
Pro Ile Trp Leu Asp Asp	Val Ser Cys Ile Gly	Asn Glu Ser Asn Ile		
	500	505		510
Trp Asp Cys Glu His Ser	Gly Trp Gly Lys His Asn	Cys Val His Arg		
	515	520		525
Glu Asp Val Ile Val Thr	Cys Ser Gly Asp Ala Thr	Trp Gly Leu Arg		
	530	535		540
Leu Val Gly Gly Ser Asn	Arg Cys Ser Gly Arg Leu	Glu Val Tyr Phe		
545	550	555		560
Gln Gly Arg Trp Gly Thr	Val Cys Asp Asp Gly Trp	Asn Ser Lys Ala		
	565	570		575
Ala Ala Val Val Cys Ser	Gln Leu Asp Cys Pro Ser	Ser Ile Ile Gly		
	580	585		590
Met Gly Leu Gly Asn Ala	Ser Thr Gly Tyr Gly Lys	Ile Trp Leu Asp		
	595	600		605
Asp Val Ser Cys Asp Gly	Asp Glu Ser Asp Leu Trp	Ser Cys Arg Asn		
	610	615		620
Ser Gly Trp Gly Asn Asn	Asp Cys Ser His Ser Glu	Asp Val Gly Val		
625	630	635		640
Ile Cys Ser Asp Ala Ser	Asp Met Glu Leu Arg Leu	Val Gly Gly Ser		
	645	650		655
Ser Arg Cys Ala Gly Lys	Val Glu Val Asn Val Gln	Gly Ala Val Gly		
	660	665		670
Ile Leu Cys Ala Asn Gly	Trp Gly Met Asn Ile Ala	Glu Val Val Cys		
	675	680		685
Arg Gln Leu Glu Cys Gly	Ser Ala Ile Arg Val Ser	Arg Glu Pro His		
	690	695		700
Phe Thr Glu Arg Thr Leu	His Ile Leu Met Ser Asn	Ser Gly Cys Thr		
705	710	715		720
Gly Gly Glu Ala Ser Leu	Trp Asp Cys Ile Arg Trp	Glu Trp Lys Gln		
	725	730		735
Thr Ala Cys His Leu Asn	Met Glu Ala Ser Leu Ile	Cys Ser Ala His		
	740	745		750

Arg	Gln	Pro	Arg	Leu	Val	Gly	Ala	Asp	Met	Pro	Cys	Ser	Gly	Arg	Val
		755					760						765		
Glu	Val	Lys	His	Ala	Asp	Thr	Trp	Arg	Ser	Val	Cys	Asp	Ser	Asp	Phe
		770					775					780			
Ser	Leu	His	Ala	Ala	Asn	Val	Leu	Cys	Arg	Glu	Leu	Asn	Cys	Gly	Asp
785					790					795					800
Ala	Ile	Ser	Leu	Ser	Val	Gly	Asp	His	Phe	Gly	Lys	Gly	Asn	Gly	Leu
				805					810					815	
Thr	Trp	Ala	Glu	Lys	Phe	Gln	Cys	Glu	Gly	Ser	Glu	Thr	His	Leu	Ala
		820						825					830		
Leu	Cys	Pro	Ile	Val	Gln	His	Pro	Glu	Asp	Thr	Cys	Ile	His	Ser	Arg
		835					840						845		
Glu	Val	Gly	Val	Val	Cys	Ser	Arg	Tyr	Thr	Asp	Val	Arg	Leu	Val	Asn
	850					855					860				
Gly	Lys	Ser	Gln	Cys	Asp	Gly	Gln	Val	Glu	Ile	Asn	Val	Leu	Gly	His
865					870					875					880
Trp	Gly	Ser	Leu	Cys	Asp	Thr	His	Trp	Asp	Pro	Glu	Asp	Ala	Arg	Val
				885					890					895	
Leu	Cys	Arg	Gln	Leu	Ser	Cys	Gly	Thr	Ala	Leu	Ser	Thr	Thr	Gly	Gly
			900					905						910	
Lys	Tyr	Ile	Gly	Glu	Arg	Ser	Val	Arg	Val	Trp	Gly	His	Arg	Phe	His
		915					920						925		
Cys	Leu	Gly	Asn	Glu	Ser	Leu	Leu	Asp	Asn	Cys	Gln	Met	Thr	Val	Leu
	930					935					940				
Gly	Ala	Pro	Pro	Cys	Ile	His	Gly	Asn	Thr	Val	Ser	Val	Ile	Cys	Thr
945					950					955					960
Gly	Ser	Leu	Thr	Gln	Pro	Leu	Phe	Pro	Cys	Leu	Ala	Asn	Val	Ser	Asp
				965					970					975	
Pro	Tyr	Leu	Ser	Ala	Val	Pro	Glu	Gly	Ser	Ala	Leu	Ile	Cys	Leu	Glu
		980						985						990	
Asp	Lys	Arg	Leu	Arg	Leu	Val	Asp	Gly	Asp	Ser	Arg	Cys	Ala	Gly	Arg
		995					1000						1005		
Val	Glu	Ile	Tyr	His	Asp	Gly	Phe	Trp	Gly	Thr	Ile	Cys	Asp	Asp	Gly
	1010					1015						1020			
Trp	Asp	Leu	Ser	Asp	Ala	His	Val	Val	Cys	Gln	Lys	Leu	Gly	Cys	Gly
1025					1030					1035					1040
Val	Ala	Phe	Asn	Ala	Thr	Val	Ser	Ala	His	Phe	Gly	Glu	Gly	Ser	Gly
				1045					1050					1055	
Pro	Ile	Trp	Leu	Asp	Asp	Leu	Asn	Cys	Thr	Gly	Thr	Glu	Ser	His	Leu
			1060					1065						1070	
Trp	Gln	Cys	Pro	Ser	Arg	Gly	Trp	Gly	Gln	His	Asp	Cys	Arg	His	Lys
		1075					1080					1085			
Glu	Asp	Ala	Gly	Val	Ile	Cys	Ser	Glu	Phe	Thr	Ala	Leu	Arg	Leu	Tyr
	1090					1095					1100				
Ser	Glu	Thr	Glu	Thr	Glu	Ser	Cys	Ala	Gly	Arg	Leu	Glu	Val	Phe	Tyr
1105					1110					1115					1120
Asn	Gly	Thr	Trp	Gly	Ser	Val	Gly	Arg	Arg	Asn	Ile	Thr	Thr	Ala	Ile
				1125					1130					1135	
Ala	Gly	Ile	Val	Cys	Arg	Gln	Leu	Gly	Cys	Gly	Glu	Asn	Gly	Val	Val
			1140					1145					1150		
Ser	Leu	Ala	Pro	Leu	Ser	Lys	Thr	Gly	Ser	Gly	Phe	Met	Trp	Val	Asp
		1155					1160					1165			
Asp	Ile	Gln	Cys	Pro	Lys	Thr	His	Ile	Ser	Ile	Trp	Gln	Cys	Leu	Ser
	1170					1175					1180				
Ala	Pro	Trp	Glu	Arg	Arg	Ile	Ser	Ser	Pro	Ala	Glu	Glu	Thr	Trp	Ile
1185					1190					1195					1200
Thr	Cys	Glu	Asp	Arg	Ile	Arg	Val	Arg	Gly	Gly	Asp	Thr	Glu	Cys	Ser



				1205					1210					1215	
Gly	Arg	Val	Glu	Ile	Trp	His	Ala	Gly	Ser	Trp	Gly	Thr	Val	Cys	Asp
			1220					1225					1230		
Asp	Ser	Trp	Asp	Leu	Ala	Glu	Ala	Glu	Val	Val	Cys	Gln	Gln	Leu	Gly
		1235						1240				1245			
Cys	Gly	Ser	Ala	Leu	Ala	Ala	Leu	Arg	Asp	Ala	Ser	Phe	Gly	Gln	Gly
	1250					1255					1260				
Thr	Gly	Thr	Ile	Trp	Leu	Asp	Asp	Met	Arg	Cys	Lys	Gly	Asn	Glu	Ser
1265					1270					1275				1280	
Phe	Leu	Trp	Asp	Cys	His	Ala	Lys	Pro	Trp	Gly	Gln	Ser	Asp	Cys	Gly
			1285						1290					1295	
His	Lys	Glu	Asp	Ala	Gly	Val	Arg	Cys	Ser	Gly	Gln	Ser	Leu	Lys	Ser
		1300						1305					1310		
Leu	Asn	Ala	Ser	Ser	Gly	His	Leu	Ala	Leu	Ile	Leu	Ser	Ser	Ile	Phe
	1315						1320					1325			
Gly	Leu	Leu	Leu	Leu	Val	Leu	Phe	Ile	Leu	Phe	Leu	Thr	Trp	Cys	Arg
	1330					1335					1340				
Val	Gln	Lys	Gln	Lys	His	Leu	Pro	Leu	Arg	Val	Ser	Thr	Arg	Arg	Arg
1345					1350					1355					1360
Gly	Ser	Leu	Glu	Glu	Asn	Leu	Phe	His	Glu	Met	Glu	Thr	Cys	Leu	Lys
			1365						1370					1375	
Arg	Glu	Asp	Pro	His	Gly	Thr	Arg	Thr	Ser	Asp	Asp	Thr	Pro	Asn	His
		1380						1385					1390		
Gly	Cys	Glu	Asp	Ala	Ser	Asp	Thr	Ser	Leu	Leu	Gly	Val	Leu	Pro	Ala
	1395						1400					1405			
Ser	Glu	Ala	Thr	Lys											
	1410														

<210> 384  
 <211> 1319  
 <212> PRT  
 <213> Homo sapiens

<400> 384															
Phe	Asn	Gly	Thr	Asp	Leu	Glu	Leu	Arg	Leu	Val	Asn	Gly	Asp	Gly	Pro
1				5					10					15	
Cys	Ser	Gly	Thr	Val	Glu	Val	Lys	Phe	Gln	Gly	Gln	Trp	Gly	Thr	Val
		20						25					30		
Cys	Asp	Asp	Gly	Trp	Asn	Thr	Thr	Ala	Ser	Thr	Val	Val	Cys	Lys	Gln
		35					40					45			
Leu	Gly	Cys	Pro	Phe	Ser	Phe	Ala	Met	Phe	Arg	Phe	Gly	Gln	Ala	Val
	50					55					60				
Thr	Arg	His	Gly	Lys	Ile	Trp	Leu	Asp	Asp	Val	Ser	Cys	Tyr	Gly	Asn
65					70					75					80
Glu	Ser	Ala	Leu	Trp	Glu	Cys	Gln	His	Arg	Glu	Trp	Gly	Ser	His	Asn
			85						90					95	
Cys	Tyr	His	Gly	Glu	Asp	Val	Gly	Val	Asn	Cys	Tyr	Gly	Glu	Ala	Asn
		100					105						110		
Leu	Gly	Leu	Arg	Leu	Val	Asp	Gly	Asn	Asn	Ser	Cys	Ser	Gly	Arg	Val
	115						120					125			
Glu	Val	Lys	Phe	Gln	Glu	Arg	Trp	Gly	Thr	Ile	Cys	Asp	Asp	Gly	Trp
	130					135					140				
Asn	Leu	Asn	Thr	Ala	Ala	Val	Val	Cys	Arg	Gln	Leu	Gly	Cys	Pro	Ser
145					150					155					160
Ser	Phe	Ile	Ser	Ser	Gly	Val	Val	Asn	Ser	Pro	Ala	Val	Leu	Arg	Pro
			165						170					175	

Ile	Trp	Leu	Asp	Asp	Ile	Leu	Cys	Gln	Gly	Asn	Glu	Leu	Ala	Leu	Trp	
			180					185					190			
Asn	Cys	Arg	His	Arg	Gly	Trp	Gly	Asn	His	Asp	Cys	Ser	His	Asn	Glu	
		195					200					205				
Asp	Val	Thr	Leu	Thr	Cys	Tyr	Asp	Ser	Ser	Asp	Leu	Glu	Leu	Arg	Leu	
	210					215					220					
Val	Gly	Gly	Thr	Asn	Arg	Cys	Met	Gly	Arg	Val	Glu	Leu	Lys	Ile	Gln	
225					230					235					240	
Gly	Arg	Trp	Gly	Thr	Val	Cys	His	His	Lys	Trp	Asn	Asn	Ala	Ala	Ala	
				245					250					255		
Asp	Val	Val	Cys	Lys	Gln	Leu	Gly	Cys	Gly	Thr	Ala	Leu	His	Phe	Ala	
			260					265					270			
Gly	Leu	Pro	His	Leu	Gln	Ser	Gly	Ser	Asp	Val	Val	Trp	Leu	Asp	Gly	
	275						280					285				
Val	Ser	Cys	Ser	Gly	Asn	Glu	Ser	Phe	Leu	Trp	Asp	Cys	Arg	His	Ser	
	290					295					300					
Gly	Thr	Val	Asn	Phe	Asp	Cys	Leu	His	Gln	Asn	Asp	Val	Ser	Val	Ile	
305					310					315					320	
Cys	Ser	Asp	Gly	Ala	Asp	Leu	Glu	Leu	Arg	Leu	Ala	Asp	Gly	Ser	Asn	
				325					330					335		
Asn	Cys	Ser	Gly	Arg	Val	Glu	Val	Arg	Ile	His	Glu	Gln	Trp	Trp	Thr	
			340					345					350			
Ile	Cys	Asp	Gln	Asn	Trp	Lys	Asn	Glu	Gln	Ala	Leu	Val	Val	Cys	Lys	
		355					360					365				
Gln	Leu	Gly	Cys	Pro	Phe	Ser	Val	Phe	Gly	Ser	Arg	Arg	Ala	Lys	Pro	
	370					375					380					
Ser	Asn	Glu	Ala	Arg	Asp	Ile	Trp	Ile	Asn	Ser	Ile	Ser	Cys	Thr	Gly	
385					390					395					400	
Asn	Glu	Ser	Ala	Leu	Trp	Asp	Cys	Thr	Tyr	Asp	Gly	Lys	Ala	Lys	Arg	
				405					410					415		
Thr	Cys	Phe	Arg	Arg	Ser	Asp	Ala	Gly	Val	Ile	Cys	Ser	Asp	Lys	Ala	
			420					425					430			
Asp	Leu	Asp	Leu	Arg	Leu	Val	Gly	Ala	His	Ser	Pro	Cys	Tyr	Gly	Arg	
	435						440					445				
Leu	Glu	Val	Lys	Tyr	Gln	Gly	Glu	Trp	Gly	Thr	Val	Cys	His	Asp	Arg	
	450					455					460					
Trp	Ser	Thr	Arg	Asn	Ala	Ala	Val	Val	Cys	Lys	Gln	Leu	Gly	Cys	Gly	
465					470					475					480	
Lys	Pro	Met	His	Val	Phe	Gly	Met	Thr	Tyr	Phe	Lys	Glu	Ala	Ser	Gly	
				485					490					495		
Pro	Ile	Trp	Leu	Asp	Asp	Val	Ser	Cys	Ile	Gly	Asn	Glu	Ser	Asn	Ile	
			500					505					510			
Trp	Asp	Cys	Glu	His	Ser	Gly	Trp	Gly	Lys	His	Asn	Cys	Val	His	Arg	
	515						520					525				
Glu	Asp	Val	Ile	Val	Thr	Cys	Ser	Gly	Asp	Ala	Thr	Trp	Gly	Leu	Arg	
	530					535					540					
Leu	Val	Gly	Gly	Ser	Asn	Arg	Cys	Ser	Gly	Arg	Leu	Glu	Val	Tyr	Phe	
545					550					555					560	
Gln	Gly	Arg	Trp	Gly	Thr	Val	Cys	Asp	Asp	Gly	Trp	Asn	Ser	Lys	Ala	
				565					570					575		
Ala	Ala	Val	Val	Cys	Ser	Gln	Leu	Asp	Cys	Pro	Ser	Ser	Ile	Ile	Gly	
			580					585					590			
Met	Gly	Leu	Gly	Asn	Ala	Ser	Thr	Gly	Tyr	Gly	Lys	Ile	Trp	Leu	Asp	
	595						600					605				
Asp	Val	Ser	Cys	Asp	Gly	Asp	Glu	Ser	Asp	Leu	Trp	Ser	Cys	Arg	Asn	
	610					615					620					
Ser	Gly	Trp	Gly	Asn	Asn	Asp	Cys	Ser	His	Ser	Glu	Asp	Val	Gly	Val	

625					630					635				640
Ile	Cys	Ser	Asp	Ala	Ser	Asp	Met	Glu	Leu	Arg	Leu	Val	Gly	Gly
				645					650					655
Ser	Arg	Cys	Ala	Gly	Lys	Val	Glu	Val	Asn	Val	Gln	Gly	Ala	Val
			660					665				670		
Ile	Leu	Cys	Ala	Asn	Gly	Trp	Gly	Met	Asn	Ile	Ala	Glu	Val	Val
		675					680					685		Cys
Arg	Gln	Leu	Glu	Cys	Gly	Ser	Ala	Ile	Arg	Val	Ser	Arg	Glu	Pro
	690					695					700			His
Phe	Thr	Glu	Arg	Thr	Leu	His	Ile	Leu	Met	Ser	Asn	Ser	Gly	Cys
705				710						715				720
Gly	Gly	Glu	Ala	Ser	Leu	Trp	Asp	Cys	Ile	Arg	Trp	Glu	Trp	Lys
			725					730						735
Thr	Ala	Cys	His	Leu	Asn	Met	Glu	Ala	Ser	Leu	Ile	Cys	Ser	Ala
		740					745					750		His
Arg	Gln	Pro	Arg	Leu	Val	Gly	Ala	Asp	Met	Pro	Cys	Ser	Gly	Arg
		755				760						765		Val
Glu	Val	Lys	His	Ala	Asp	Thr	Trp	Arg	Ser	Val	Cys	Asp	Ser	Asp
770					775						780			Phe
Ser	Leu	His	Ala	Ala	Asn	Val	Leu	Cys	Arg	Glu	Leu	Asn	Cys	Gly
785					790					795				800
Ala	Ile	Ser	Leu	Ser	Val	Gly	Asp	His	Phe	Gly	Lys	Gly	Asn	Gly
			805					810						815
Thr	Trp	Ala	Glu	Lys	Phe	Gln	Cys	Glu	Gly	Ser	Glu	Thr	His	Leu
		820					825						830	Ala
Leu	Cys	Pro	Ile	Val	Gln	His	Pro	Glu	Asp	Thr	Cys	Ile	His	Ser
		835					840					845		Arg
Glu	Val	Gly	Val	Val	Cys	Ser	Arg	Tyr	Thr	Asp	Val	Arg	Leu	Val
850					855					860				Asn
Gly	Lys	Ser	Gln	Cys	Asp	Gly	Gln	Val	Glu	Ile	Asn	Val	Leu	Gly
865				870					875					His
Trp	Gly	Ser	Leu	Cys	Asp	Thr	His	Trp	Asp	Pro	Glu	Asp	Ala	Arg
			885					890						895
Leu	Cys	Arg	Gln	Leu	Ser	Cys	Gly	Thr	Ala	Leu	Ser	Thr	Thr	Gly
		900					905						910	Gly
Lys	Tyr	Ile	Gly	Glu	Arg	Ser	Val	Arg	Val	Trp	Gly	His	Arg	Phe
	915					920						925		His
Cys	Leu	Gly	Asn	Glu	Ser	Leu	Leu	Asp	Asn	Cys	Gln	Met	Thr	Val
	930					935				940				Leu
Gly	Ala	Pro	Pro	Cys	Ile	His	Gly	Asn	Thr	Val	Ser	Val	Ile	Cys
945				950					955					960
Gly	Ser	Leu	Thr	Gln	Pro	Leu	Phe	Pro	Cys	Leu	Ala	Asn	Val	Ser
			965					970					975	Asp
Pro	Tyr	Leu	Ser	Ala	Val	Pro	Glu	Gly	Ser	Ala	Leu	Ile	Cys	Leu
		980					985					990		Glu
Asp	Lys	Arg	Leu	Arg	Leu	Val	Asp	Gly	Asp	Ser	Arg	Cys	Ala	Gly
	995					1000						1005		Arg
Val	Glu	Ile	Tyr	His	Asp	Gly	Phe	Trp	Gly	Thr	Ile	Cys	Asp	Asp
	1010				1015					1020				Gly
Trp	Asp	Leu	Ser	Asp	Ala	His	Val	Val	Cys	Gln	Lys	Leu	Gly	Cys
1025				1030					1035					1040
Val	Ala	Phe	Asn	Ala	Thr	Val	Ser	Ala	His	Phe	Gly	Glu	Gly	Ser
			1045					1050					1055	Gly
Pro	Ile	Trp	Leu	Asp	Asp	Leu	Asn	Cys	Thr	Gly	Thr	Glu	Ser	His
		1060					1065					1070		Leu
Trp	Gln	Cys	Pro	Ser	Arg	Gly	Trp	Gly	Gln	His	Asp	Cys	Arg	His
	1075					1080						1085		Lys

Glu Asp Ala Gly Val Ile Cys Ser Glu Phe Thr Ala Leu Arg Leu Tyr  
 1090 1095 1100  
 Ser Glu Thr Glu Thr Glu Ser Cys Ala Gly Arg Leu Glu Val Phe Tyr  
 1105 1110 1115 1120  
 Asn Gly Thr Trp Gly Ser Val Gly Arg Arg Asn Ile Thr Thr Ala Ile  
 1125 1130 1135  
 Ala Gly Ile Val Cys Arg Gln Leu Gly Cys Gly Glu Asn Gly Val Val  
 1140 1145 1150  
 Ser Leu Ala Pro Leu Ser Lys Thr Gly Ser Gly Phe Met Trp Val Asp  
 1155 1160 1165  
 Asp Ile Gln Cys Pro Lys Thr His Ile Ser Ile Trp Gln Cys Leu Ser  
 1170 1175 1180  
 Ala Pro Trp Glu Arg Arg Ile Ser Ser Pro Ala Glu Glu Thr Trp Ile  
 1185 1190 1195 1200  
 Thr Cys Glu Asp Arg Ile Arg Val Arg Gly Gly Asp Thr Glu Cys Ser  
 1205 1210 1215  
 Gly Arg Val Glu Ile Trp His Ala Gly Ser Trp Gly Thr Val Cys Asp  
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 Asp Ser Trp Asp Leu Ala Glu Ala Glu Val Val Cys Gln Gln Leu Gly  
 1235 1240 1245  
 Cys Gly Ser Ala Leu Ala Ala Leu Arg Asp Ala Ser Phe Gly Gln Gly  
 1250 1255 1260  
 Thr Gly Thr Ile Trp Leu Asp Asp Met Arg Cys Lys Gly Asn Glu Ser  
 1265 1270 1275 1280  
 Phe Leu Trp Asp Cys His Ala Lys Pro Trp Gly Gln Ser Asp Cys Gly  
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 <212> PRT  
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<400> 385  
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<400> 386  
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 Lys Arg Glu Asp Pro His Gly Thr Arg Thr Ser Asp Asp Thr Pro Asn  
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<212> DNA  
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gagtgaatgt gcctttaaga agaagagcaa tgagacacag tgtttcaact tcatcctgtg 420  
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 <212> DNA  
 <213> Homo sapiens

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<210> 389  
 <211> 761  
 <212> PRT  
 <213> Homo sapiens

<400> 389

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			20					25					30		
Gly	Gly	Gly	Gln	Gly	Pro	Met	Pro	Arg	Val	Arg	Tyr	Tyr	Ala	Gly	Asp
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Glu	Arg	Arg	Ala	Leu	Ser	Phe	Phe	His	Gln	Lys	Gly	Leu	Gln	Asp	Phe
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Asp	Thr	Leu	Leu	Leu	Ser	Gly	Asp	Gly	Asn	Thr	Leu	Tyr	Val	Gly	Ala
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Arg	Glu	Ala	Ile	Leu	Ala	Leu	Asp	Ile	Gln	Asp	Pro	Gly	Val	Pro	Arg
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Leu	Lys	Asn	Met	Ile	Pro	Trp	Pro	Ala	Ser	Asp	Arg	Lys	Lys	Ser	Glu
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Cys	Ala	Phe	Lys	Lys	Lys	Ser	Asn	Glu	Thr	Gln	Cys	Phe	Asn	Phe	Ile
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Leu	Leu	Pro	Ile	Ser	Glu	Asp	Lys	Val	Met	Glu	Gly	Lys	Gly	Gln	Ser
			165					170						175	
Pro	Phe	Asp	Pro	Ala	His	Lys	His	Thr	Ala	Val	Leu	Val	Asp	Gly	Met
		180						185					190		
Leu	Tyr	Ser	Gly	Thr	Met	Asn	Asn	Phe	Leu	Gly	Ser	Glu	Pro	Ile	Leu
	195					200						205			
Met	Arg	Thr	Leu	Gly	Ser	Gln	Pro	Val	Leu	Lys	Thr	Asp	Asn	Phe	Leu
	210					215					220				
Arg	Trp	Leu	His	His	Asp	Ala	Ser	Phe	Val	Ala	Ala	Ile	Pro	Ser	Thr
225					230					235					240
Gln	Val	Val	Tyr	Phe	Phe	Phe	Glu	Glu	Thr	Ala	Ser	Glu	Phe	Asp	Phe
			245						250					255	
Phe	Glu	Arg	Leu	His	Thr	Ser	Arg	Val	Ala	Arg	Val	Cys	Lys	Asn	Asp
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Val	Gly	Gly	Glu	Lys	Leu	Leu	Gln	Lys	Lys	Trp	Thr	Thr	Phe	Leu	Lys
	275						280					285			
Ala	Gln	Leu	Leu	Cys	Thr	Gln	Pro	Gly	Gln	Leu	Pro	Phe	Asn	Val	Ile
	290					295					300				
Arg	His	Ala	Val	Leu	Leu	Pro	Ala	Asp	Ser	Pro	Thr	Ala	Pro	His	Ile
305					310					315					320
Tyr	Ala	Val	Phe	Thr	Ser	Gln	Trp	Gln	Val	Gly	Gly	Thr	Arg	Ser	Ser
			325						330					335	
Ala	Val	Cys	Ala	Phe	Ser	Leu	Leu	Asp	Ile	Glu	Arg	Val	Phe	Lys	Gly
		340						345					350		
Lys	Tyr	Lys	Glu	Leu	Asn	Lys	Glu	Thr	Ser	Arg	Trp	Thr	Thr	Tyr	Arg
	355					360						365			
Gly	Pro	Glu	Thr	Asn	Pro	Arg	Pro	Gly	Ser	Cys	Ser	Val	Gly	Pro	Ser
	370					375					380				
Ser	Asp	Lys	Ala	Leu	Thr	Phe	Met	Lys	Asp	His	Phe	Leu	Met	Asp	Glu
385					390					395					400
Gln	Val	Val	Gly	Thr	Pro	Leu	Leu	Val	Lys	Ser	Gly	Val	Glu	Tyr	Thr
			405						410					415	
Arg	Leu	Ala	Val	Glu	Thr	Ala	Gln	Gly	Leu	Asp	Gly	His	Ser	His	Leu
		420					425						430		
Val	Met	Tyr	Leu	Gly	Thr	Thr	Thr	Gly	Ser	Leu	His	Lys	Ala	Val	Val





<212> PRT  
 <213> Homo sapiens

<400> 391  
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 Phe Asp Thr Leu Leu Leu Ser Gly Asp Gly Asn Thr Leu Tyr Val Gly  
 35 40 45  
 Ala Arg Glu Ala Ile Leu Ala Leu Asp Ile Gln Asp Pro Gly Val Pro  
 50 55 60  
 Arg Leu Lys Asn Met Ile Pro Trp Pro Ala Ser Asp Arg Lys Lys Ser  
 65 70 75 80  
 Glu Cys Ala Phe Lys Lys Lys Ser Asn Glu Thr Gln Cys Phe Asn Phe  
 85 90 95  
 Ile Arg Val Leu Val Ser Tyr Asn Val Thr His Leu Tyr Thr Cys Gly  
 100 105 110  
 Thr Phe Ala Phe Ser Pro Ala Cys Thr Phe Ile Glu Leu Gln Asp Ser  
 115 120 125  
 Tyr Leu Leu Pro Ile Ser Glu Asp Lys Val Met Glu Gly Lys Gly Gln  
 130 135 140  
 Ser Pro Phe Asp Pro Ala His Lys His Thr Ala Val Leu Val Asp Gly  
 145 150 155 160  
 Met Leu Tyr Ser Gly Thr Met Asn Asn Phe Leu Gly Ser Glu Pro Ile  
 165 170 175  
 Leu Met Arg Thr Leu Gly Ser Gln Pro Val Leu Lys Thr Asp Asn Phe  
 180 185 190  
 Leu Arg Trp Leu His His Asp Ala Ser Phe Val Ala Ala Ile Pro Ser  
 195 200 205  
 Thr Gln Val Val Tyr Phe Phe Glu Glu Thr Ala Ser Glu Phe Asp  
 210 215 220  
 Phe Phe Glu Arg Leu His Thr Ser Arg Val Ala Arg Val Cys Lys Asn  
 225 230 235 240  
 Asp Val Gly Gly Glu Lys Leu Leu Gln Lys Lys Trp Thr Thr Phe Leu  
 245 250 255  
 Lys Ala Gln Leu Leu Cys Thr Gln Pro Gly Gln Leu Pro Phe Asn Val  
 260 265 270  
 Ile Arg His Ala Val Leu Leu Pro Ala Asp Ser Pro Thr Ala Pro His  
 275 280 285  
 Ile Tyr Ala Val Phe Thr Ser Gln Trp Gln Val Gly Gly Thr Arg Ser  
 290 295 300  
 Ser Ala Val Cys Ala Phe Ser Leu Leu Asp Ile Glu Arg Val Phe Lys  
 305 310 315 320  
 Gly Lys Tyr Lys Glu Leu Asn Lys Glu Thr Ser Arg Trp Thr Thr Tyr  
 325 330 335  
 Arg Gly Pro Glu Thr Asn Pro Arg Pro Gly Ser Cys Ser Val Gly Pro  
 340 345 350  
 Ser Ser Asp Lys Ala Leu Thr Phe Met Lys Asp His Phe Leu Met Asp  
 355 360 365  
 Glu Gln Val Val Gly Thr Pro Leu Leu Val Lys Ser Gly Val Glu Tyr  
 370 375 380  
 Thr Arg Leu Ala Val Glu Thr Ala Gln Gly Leu Asp Gly His Ser His  
 385 390 395 400  
 Leu Val Met Tyr Leu Gly Thr Thr Thr Gly Ser Leu His Lys Ala Val  
 405 410 415  
 Val Ser Gly Asp Ser Ser Ala His Leu Val Glu Glu Ile Gln Leu Phe



Glu	Cys	Ala	Phe	Lys	Lys	Lys	Ser	Asn	Glu	Thr	Gln	Cys	Phe	Asn	Phe
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Ile	Arg	Val	Leu	Val	Ser	Tyr	Asn	Val	Thr	His	Leu	Tyr	Thr	Cys	Gly
			100					105					110		
Thr	Phe	Ala	Phe	Ser	Pro	Ala	Cys	Thr	Phe	Ile	Glu	Leu	Gln	Asp	Ser
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Tyr	Leu	Leu	Pro	Ile	Ser	Glu	Asp	Lys	Val	Met	Glu	Gly	Lys	Gly	Gln
	130					135					140				
Ser	Pro	Phe	Asp	Pro	Ala	His	Lys	His	Thr	Ala	Val	Leu	Val	Asp	Gly
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Met	Leu	Tyr	Ser	Gly	Thr	Met	Asn	Asn	Phe	Leu	Gly	Ser	Glu	Pro	Ile
			165						170					175	
Leu	Met	Arg	Thr	Leu	Gly	Ser	Gln	Pro	Val	Leu	Lys	Thr	Asp	Asn	Phe
		180						185					190		
Leu	Arg	Trp	Leu	His	His	Asp	Ala	Ser	Phe	Val	Ala	Ala	Ile	Pro	Ser
		195					200					205			
Thr	Gln	Val	Val	Tyr	Phe	Phe	Phe	Glu	Glu	Thr	Ala	Ser	Glu	Phe	Asp
	210					215					220				
Phe	Phe	Glu	Arg	Leu	His	Thr	Ser	Arg	Val	Ala	Arg	Val	Cys	Lys	Asn
225					230					235					240
Asp	Val	Gly	Gly	Glu	Lys	Leu	Leu	Gln	Lys	Lys	Trp	Thr	Thr	Phe	Leu
			245						250					255	
Lys	Ala	Gln	Leu	Leu	Cys	Thr	Gln	Pro	Gly	Gln	Leu	Pro	Phe	Asn	Val
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Ile	Arg	His	Ala	Val	Leu	Leu	Pro	Ala	Asp	Ser	Pro	Thr	Ala	Pro	His
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Ile	Tyr	Ala	Val	Phe	Thr	Ser	Gln	Trp	Gln	Val	Gly	Gly	Thr	Arg	Ser
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Ser	Ala	Val	Cys	Ala	Phe	Ser	Leu	Leu	Asp	Ile	Glu	Arg	Val	Phe	Lys
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Gly	Lys	Tyr	Lys	Glu	Leu	Asn	Lys	Glu	Thr	Ser	Arg	Trp	Thr	Thr	Tyr
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Arg	Gly	Pro	Glu	Thr	Asn	Pro	Arg	Pro	Gly	Ser	Cys	Ser	Val	Gly	Pro
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Ser	Ser	Asp	Lys	Ala	Leu	Thr	Phe	Met	Lys	Asp	His	Phe	Leu	Met	Asp
		355					360					365			
Glu	Gln	Val	Val	Gly	Thr	Pro	Leu	Leu	Val	Lys	Ser	Gly	Val	Glu	Tyr
	370					375					380				
Thr	Arg	Leu	Ala	Val	Glu	Thr	Ala	Gln	Gly	Leu	Asp	Gly	His	Ser	His
385					390					395					400
Leu	Val	Met	Tyr	Leu	Gly	Thr	Thr	Thr	Gly	Ser	Leu	His	Lys	Ala	Val
			405						410					415	
Val	Ser	Gly	Asp	Ser	Ser	Ala	His	Leu	Val	Glu	Glu	Ile	Gln	Leu	Phe
		420						425					430		
Pro	Asp	Pro	Glu	Pro	Val	Arg	Asn	Leu	Gln	Leu	Ala	Pro	Thr	Gln	Gly
		435					440					445			
Ala	Val	Phe	Val	Gly	Phe	Ser	Gly	Gly	Val	Trp	Arg	Val	Pro	Arg	Ala
	450					455					460				
Asn	Cys	Ser	Val	Tyr	Glu	Ser	Cys	Val	Asp	Cys	Val	Leu	Ala	Arg	Asp
465					470					475					480
Pro	His	Cys	Ala	Trp	Asp	Pro	Glu	Ser	Arg	Thr	Cys	Cys	Leu	Leu	Ser
			485						490					495	
Ala	Pro	Asn	Leu	Asn	Ser	Trp	Lys	Gln	Asp	Met	Glu	Arg	Gly	Asn	Pro
		500						505					510		
Glu	Trp	Ala	Cys	Ala	Ser	Gly	Pro	Met	Ser	Arg	Ser	Leu	Arg	Pro	Gln
	515						520					525			
Ser	Arg	Pro	Gln	Ile	Ile	Lys	Glu	Val	Leu	Ala	Val	Pro	Asn	Ser	Ile

530		535		540											
Leu	Glu	Leu	Pro	Cys	Pro	His	Leu	Ser	Ala	Leu	Ala	Ser	Tyr	Tyr	Trp
545					550					555					560
Ser	His	Gly	Pro	Ala	Ala	Val	Pro	Glu	Ala	Ser	Ser	Thr	Val	Tyr	Asn
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Gly	Ser	Leu	Leu	Leu	Ile	Val	Gln	Asp	Gly	Val	Gly	Gly	Leu	Tyr	Gln
				580						585					590
Cys	Trp	Ala	Thr	Glu	Asn	Gly	Phe	Ser	Tyr	Pro	Val	Ile	Ser	Tyr	Trp
				595						600					605
Val	Asp	Ser	Gln	Asp	Gln	Thr	Leu	Ala	Leu	Asp	Pro	Glu	Leu	Ala	Gly
				610						615					620
Ile	Pro	Arg	Glu	His	Val	Lys	Val	Pro	Leu	Thr	Arg	Val	Ser	Gly	Gly
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625					630					635					
Ala	Ala	Leu	Ala	Ala	Gln	Gln	Ser	Tyr	Trp	Pro	His				
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<210> 393  
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 <213> Homo sapiens

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<210> 394  
 <211> 57  
 <212> PRT  
 <213> Homo sapiens

<400> 394  
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 Thr Leu Arg Pro Gly Glu Lys Ala Pro Leu Ser Arg Glu Gln His Leu  
 20 25 30  
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 35 40 45  
 Asn Asn Cys Leu Gly Thr Glu Val Ala  
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<210> 403

<211> 1980

<212> DNA

<213> Homo sapiens

<400> 403

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aactacaatt	tttcaaatat	aaaaatcagt	gccttttcat	ttccaaatac	ctcattgggt	420
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gactgggggt	tcgagtctcc	actttttgtt	ctgtataact	cctttgctga	gcccattggag	540
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ctggattact	ccctaatacag	ttctccagaa	attactgaga	actaccttga	cctgaacttg	720
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ggtaagcaac	tctaagtctg	tatttgtatt	ggtcattctc	agtggaaatc	ccttagggcc	1860
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<210> 404

<211> 1365

<212> DNA

<213> Homo sapiens

<400> 404

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gatttaagcg	gttctgagtc	tcttgaattt	ctaaaagtgt	attatgtaaa	ctacaatttt	240
tcaaatataa	aaatcagtc	cttttcattt	ccaaatacct	cattggcttt	tgtgcctgga	300
gtgggaatca	aagcgctaac	caaccatggc	actgccaaca	tcagcacaga	ctgggggttc	360
gagctctccac	ttttgttct	gtataactcc	tttgcctgagc	ccatggagaa	acccatttta	420
aagaacttaa	atgaaatgct	ctgtcccat	attgcaagt	aagtcaaagc	gctaaatgcc	480
aacctcagca	cactggaggt	tttaaccaag	attgacaact	acactctgct	ggattactcc	540
ctaatacagtt	ctccagaaat	tactgagaac	taccttgacc	tgaacttgaa	gggtgtattc	600
tacccactgg	aaaacctcac	cgaccccccc	ttctcaccag	ttccttttgt	gctcccagaa	660
cgcagcaact	ccatgctcta	cattggaatc	gccgagtatt	tctttaaatac	tgcgctcctt	720
gctcattttca	cagctgggggt	tttcaatctc	actctctcca	ccgaagagat	ttccaacat	780
tttgttcaaa	actctcaagg	ccttggcaac	gtgctctccc	ggattgcaga	gatctacatc	840
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ccaggcaatt tcaccctgga catccctgcc tccatcatga tgctcaccga acccaagaac 960
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gagtcgaatc gcagcaacat tgaggtcctg aggtttgaaa atattctatc gtccattctt 1140
cactttggag tcctcccact ggccaatgca aaattgcagc aaggatttcc tctgccaat 1200
ccacacaaat tcttattcgt caattcagat attgaagttc ttgaggggtt ccttttgatt 1260
tccaccgacc tgaagtatga aacatcctca aagcagcagc caagtttcca cgtatgggaa 1320
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<210> 405
<211> 455
<212> PRT
<213> Homo sapiens

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Arg Ile Thr Gln Arg Ala Leu Asp Tyr Gly Val Gln Ala Gly Met Lys
 35          40          45
Met Ile Glu Gln Met Leu Lys Glu Lys Lys Leu Pro Asp Leu Ser Gly
 50          55          60
Ser Glu Ser Leu Glu Phe Leu Lys Val Asp Tyr Val Asn Tyr Asn Phe
 65          70          75          80
Ser Asn Ile Lys Ile Ser Ala Phe Ser Phe Pro Asn Thr Ser Leu Ala
 85          90          95
Phe Val Pro Gly Val Gly Ile Lys Ala Leu Thr Asn His Gly Thr Ala
100          105          110
Asn Ile Ser Thr Asp Trp Gly Phe Glu Ser Pro Leu Phe Val Leu Tyr
115          120          125
Asn Ser Phe Ala Glu Pro Met Glu Lys Pro Ile Leu Lys Asn Leu Asn
130          135          140
Glu Met Leu Cys Pro Ile Ile Ala Ser Glu Val Lys Ala Leu Asn Ala
145          150          155          160
Asn Leu Ser Thr Leu Glu Val Leu Thr Lys Ile Asp Asn Tyr Thr Leu
165          170          175
Leu Asp Tyr Ser Leu Ile Ser Ser Pro Glu Ile Thr Glu Asn Tyr Leu
180          185          190
Asp Leu Asn Leu Lys Gly Val Phe Tyr Pro Leu Glu Asn Leu Thr Asp
195          200          205
Pro Pro Phe Ser Pro Val Pro Phe Val Leu Pro Glu Arg Ser Asn Ser
210          215          220
Met Leu Tyr Ile Gly Ile Ala Glu Tyr Phe Phe Lys Ser Ala Ser Phe
225          230          235          240
Ala His Phe Thr Ala Gly Val Phe Asn Leu Thr Leu Ser Thr Glu Glu
245          250          255
Ile Ser Asn His Phe Val Gln Asn Ser Gln Gly Leu Gly Asn Val Leu
260          265          270
Ser Arg Ile Ala Glu Ile Tyr Ile Leu Ser Gln Pro Phe Met Val Arg
275          280          285
Ile Met Ala Thr Glu Pro Pro Ile Ile Asn Leu Gln Pro Gly Asn Phe
290          295          300
Thr Leu Asp Ile Pro Ala Ser Ile Met Met Leu Thr Gln Pro Lys Asn
305          310          315          320
Ser Thr Val Glu Thr Ile Val Ser Met Asp Phe Val Ala Ser Thr Ser
325          330          335

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Val	Gly	Leu	Val	Ile	Leu	Gly	Gln	Arg	Leu	Val	Cys	Ser	Leu	Ser	Leu
			340					345					350		
Asn	Arg	Phe	Arg	Leu	Ala	Leu	Pro	Glu	Ser	Asn	Arg	Ser	Asn	Ile	Glu
		355					360					365			
Val	Leu	Arg	Phe	Glu	Asn	Ile	Leu	Ser	Ser	Ile	Leu	His	Phe	Gly	Val
	370					375					380				
Leu	Pro	Leu	Ala	Asn	Ala	Lys	Leu	Gln	Gln	Gly	Phe	Pro	Leu	Pro	Asn
385					390					395					400
Pro	His	Lys	Phe	Leu	Phe	Val	Asn	Ser	Asp	Ile	Glu	Val	Leu	Glu	Gly
				405					410					415	
Phe	Leu	Leu	Ile	Ser	Thr	Asp	Leu	Lys	Tyr	Glu	Thr	Ser	Ser	Lys	Gln
			420				425						430		
Gln	Pro	Ser	Phe	His	Val	Trp	Glu	Gly	Leu	Asn	Leu	Ile	Ser	Arg	Gln
		435					440						445		
Trp	Arg	Gly	Lys	Ser	Ala	Pro									
	450					455									

<210> 406  
 <211> 23  
 <212> PRT  
 <213> Homo sapiens

<400> 406  
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 Asn Leu Tyr Val Ser Ser Ser  
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<210> 407  
 <211> 432  
 <212> PRT  
 <213> Homo sapiens

<400> 407  
 Gln Thr Ile Tyr Pro Gly Ile Lys Ala Arg Ile Thr Gln Arg Ala Leu  
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 Asp Tyr Gly Val Gln Ala Gly Met Lys Met Ile Glu Gln Met Leu Lys  
 20 25 30  
 Glu Lys Lys Leu Pro Asp Leu Ser Gly Ser Glu Ser Leu Glu Phe Leu  
 35 40 45  
 Lys Val Asp Tyr Val Asn Tyr Asn Phe Ser Asn Ile Lys Ile Ser Ala  
 50 55 60  
 Phe Ser Phe Pro Asn Thr Ser Leu Ala Phe Val Pro Gly Val Gly Ile  
 65 70 75 80  
 Lys Ala Leu Thr Asn His Gly Thr Ala Asn Ile Ser Thr Asp Trp Gly  
 85 90 95  
 Phe Glu Ser Pro Leu Phe Val Leu Tyr Asn Ser Phe Ala Glu Pro Met  
 100 105 110  
 Glu Lys Pro Ile Leu Lys Asn Leu Asn Glu Met Leu Cys Pro Ile Ile  
 115 120 125  
 Ala Ser Glu Val Lys Ala Leu Asn Ala Asn Leu Ser Thr Leu Glu Val  
 130 135 140  
 Leu Thr Lys Ile Asp Asn Tyr Thr Leu Leu Asp Tyr Ser Leu Ile Ser  
 145 150 155 160  
 Ser Pro Glu Ile Thr Glu Asn Tyr Leu Asp Leu Asn Leu Lys Gly Val





Gly Asn Phe Asp Leu Ser Ile Glu Gly Met Ser Ile Ser Ala Asp Leu  
 130 135 140  
 Lys Leu Gly Ser Asn Pro Thr Ser Gly Lys Pro Thr Ile Thr Cys Ser  
 145 150 155 160  
 Ser Cys Ser Ser His Ile Asn Ser Val His Val His Ile Ser Lys Ser  
 165 170 175  
 Lys Val Gly Trp Leu Ile Gln Leu Phe His Lys Lys Ile Glu Ser Ala  
 180 185 190  
 Leu Arg Asn Lys Met Asn Ser Gln Val Cys Glu Lys Val Thr Asn Ser  
 195 200 205  
 Val Ser Ser Lys Leu Gln Pro Tyr Phe Gln Thr Leu Pro Val Met Thr  
 210 215 220  
 Lys Ile Asp Ser Val Ala Gly Ile Asn Tyr Gly Leu Val Ala Pro Pro  
 225 230 235 240  
 Ala Thr Thr Ala Glu Thr Leu Asp Val Gln Met Lys Gly Glu Phe Tyr  
 245 250 255  
 Ser Glu Asn His His Asn Pro Pro Pro Phe Ala Pro Pro Val Met Glu  
 260 265 270  
 Phe Pro Ala Ala His Asp Arg Met Val Tyr Leu Gly Leu Ser Asp Tyr  
 275 280 285  
 Phe Phe Asn Thr Ala Gly Leu Val Tyr Gln Glu Ala Gly Val Leu Lys  
 290 295 300  
 Met Thr Leu Arg Asp Asp Met Ile Pro Lys Glu Ser Lys Phe Arg Leu  
 305 310 315 320  
 Thr Thr Lys Phe Phe Gly Thr Phe Leu Pro Glu Val Ala Lys Lys Phe  
 325 330 335  
 Pro Asn Met Lys Ile Gln Ile His Val Ser Ala Ser Thr Pro Pro His  
 340 345 350  
 Leu Ser Val Gln Pro Thr Gly Leu Thr Phe Tyr Pro Ala Val Asp Val  
 355 360 365  
 Gln Ala Phe Ala Val Leu Pro Asn Ser Ser Leu Ala Ser Leu Phe Leu  
 370 375 380  
 Ile Gly Met His Thr Thr Gly Ser Met Glu Val Ser Ala Glu Ser Asn  
 385 390 395 400  
 Arg Leu Val Gly Glu Leu Lys Leu Asp Arg Leu Leu Leu Glu Leu Lys  
 405 410 415  
 His Ser Asn Ile Gly Pro Phe Pro Val Glu Leu Leu Gln Asp Ile Met  
 420 425 430  
 Asn Tyr Ile Val Pro Ile Leu Val Leu Pro Arg Val Asn Glu Lys Leu  
 435 440 445  
 Gln Lys Gly Phe Pro Leu Pro Thr Pro Ala Arg Val Gln Leu Tyr Asn  
 450 455 460  
 Val Val Leu Gln Pro His Gln Asn Phe Leu Leu Phe Gly Ala Asp Val  
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 Val Tyr Lys

<210> 409  
 <211> 481  
 <212> PRT  
 <213> Homo sapiens

<400> 409  
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 1 5 10 15  
 Leu Thr Ser Thr Pro Glu Ala Leu Gly Ala Asn Pro Gly Leu Val Ala

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Arg	Ile	Thr	Asp	Lys	Gly	Leu	Gln	Tyr	Ala	Ala	Gln	Glu	Gly	Leu	Leu
		35					40					45			
Ala	Leu	Gln	Ser	Glu	Leu	Leu	Arg	Ile	Thr	Leu	Pro	Asp	Phe	Thr	Gly
	50					55					60				
Asp	Leu	Arg	Ile	Pro	His	Val	Gly	Arg	Gly	Arg	Tyr	Glu	Phe	His	Ser
65					70					75					80
Leu	Asn	Ile	His	Glu	Phe	Gln	Leu	Pro	Ser	Ser	Gln	Ile	Ser	Met	Val
				85					90					95	
Pro	Asn	Val	Gly	Leu	Lys	Phe	Ser	Ile	Ser	Asn	Ala	Asn	Ile	Lys	Ile
			100					105					110		
Ser	Gly	Lys	Trp	Lys	Ala	Gln	Lys	Arg	Phe	Leu	Lys	Met	Ser	Gly	Asn
		115					120					125			
Phe	Asp	Leu	Ser	Ile	Glu	Gly	Met	Ser	Ile	Ser	Ala	Asp	Leu	Lys	Leu
	130					135					140				
Gly	Ser	Asn	Pro	Thr	Ser	Gly	Lys	Pro	Thr	Ile	Thr	Cys	Ser	Ser	Cys
145					150					155					160
Ser	Ser	His	Ile	Asn	Ser	Val	His	Val	His	Ile	Ser	Lys	Ser	Lys	Val
				165					170					175	
Gly	Trp	Leu	Ile	Gln	Leu	Phe	His	Lys	Lys	Ile	Glu	Ser	Ala	Leu	Arg
		180						185					190		
Asn	Lys	Met	Asn	Ser	Gln	Val	Cys	Glu	Lys	Val	Thr	Asn	Ser	Val	Ser
		195					200					205			
Ser	Lys	Leu	Gln	Pro	Tyr	Phe	Gln	Thr	Leu	Pro	Val	Met	Thr	Lys	Ile
	210					215					220				
Asp	Ser	Val	Ala	Gly	Ile	Asn	Tyr	Gly	Leu	Val	Ala	Pro	Pro	Ala	Thr
225					230					235					240
Thr	Ala	Glu	Thr	Leu	Asp	Val	Gln	Met	Lys	Gly	Glu	Phe	Tyr	Ser	Glu
				245					250					255	
Asn	His	His	Asn	Pro	Pro	Pro	Phe	Ala	Pro	Pro	Val	Met	Glu	Phe	Pro
			260					265					270		
Ala	Ala	His	Asp	Arg	Met	Val	Tyr	Leu	Gly	Leu	Ser	Asp	Tyr	Phe	Phe
		275					280					285			
Asn	Thr	Ala	Gly	Leu	Val	Tyr	Gln	Glu	Ala	Gly	Val	Leu	Lys	Met	Thr
	290					295					300				
Leu	Arg	Asp	Asp	Met	Ile	Pro	Lys	Glu	Ser	Lys	Phe	Arg	Leu	Thr	Thr
305					310					315					320
Lys	Phe	Phe	Gly	Thr	Phe	Leu	Pro	Glu	Val	Ala	Lys	Lys	Phe	Pro	Asn
				325					330					335	
Met	Lys	Ile	Gln	Ile	His	Val	Ser	Ala	Ser	Thr	Pro	Pro	His	Leu	Ser
			340					345					350		
Val	Gln	Pro	Thr	Gly	Leu	Thr	Phe	Tyr	Pro	Ala	Val	Asp	Val	Gln	Ala
		355					360					365			
Leu	Ala	Val	Leu	Pro	Asn	Ser	Ser	Leu	Ala	Ser	Leu	Phe	Leu	Ile	Gly
	370					375					380				
Met	His	Thr	Thr	Gly	Ser	Met	Glu	Val	Ser	Ala	Glu	Ser	Asn	Arg	Leu
385					390					395					400
Val	Gly	Glu	Leu	Lys	Leu	Asp	Arg	Leu	Leu	Glu	Leu	Lys	His	Ser	
				405					410				415		
Asn	Ile	Gly	Pro	Phe	Pro	Val	Glu	Leu	Leu	Gln	Asp	Ile	Met	Asn	Tyr
			420					425					430		
Ile	Val	Pro	Ile	Leu	Val	Leu	Pro	Arg	Val	Asn	Glu	Lys	Leu	Gln	Lys
		435					440					445			
Gly	Phe	Pro	Leu	Pro	Thr	Pro	Ala	Arg	Val	Gln	Leu	Tyr	Asn	Val	Val
	450					455					460				
Leu	Gln	Pro	His	Gln	Asn	Phe	Leu	Leu	Phe	Gly	Ala	Asp	Val	Val	Tyr
465					470					475					480

Lys

<210> 410  
 <211> 383  
 <212> PRT  
 <213> Homo sapiens

<400> 410  
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 Val Phe Leu Ile Pro Leu Ile Ala Tyr Ile Leu Ile Leu Pro Gly Val  
 20 25 30  
 Arg Arg Lys Arg Val Val Thr Thr Val Thr Tyr Val Leu Met Leu Ala  
 35 40 45  
 Val Gly Gly Ala Leu Ile Ala Ser Leu Ile Tyr Pro Cys Trp Ala Ser  
 50 55 60  
 Gly Ser Gln Met Ile Tyr Thr Gln Phe Arg Gly His Ser Asn Glu Arg  
 65 70 75 80  
 Ile Leu Ala Lys Ile Gly Val Glu Ile Gly Leu Gln Lys Val Asn Val  
 85 90 95  
 Thr Leu Lys Phe Glu Arg Leu Leu Ser Ser Asn Asp Val Leu Pro Gly  
 100 105 110  
 Ser Asp Met Thr Glu Leu Tyr Tyr Asn Glu Gly Phe Asp Ile Ser Gly  
 115 120 125  
 Ile Ser Ser Met Ala Glu Ala Leu His His Gly Leu Glu Asn Gly Leu  
 130 135 140  
 Pro Tyr Pro Met Leu Ser Val Leu Glu Tyr Phe Ser Leu Asn Gln Asp  
 145 150 155 160  
 Ser Phe Asp Trp Gly Arg His Tyr Arg Val Ala Gly His Tyr Thr His  
 165 170 175  
 Ala Ala Ile Trp Phe Ala Phe Ala Cys Trp Cys Leu Ser Val Val Leu  
 180 185 190  
 Met Leu Phe Leu Pro His Asn Ala Tyr Lys Ser Ile Leu Ala Thr Gly  
 195 200 205  
 Ile Ser Cys Leu Ile Ala Cys Leu Val Tyr Leu Leu Ser Pro Cys  
 210 215 220  
 Glu Leu Arg Ile Ala Phe Thr Gly Glu Asn Phe Glu Arg Val Asp Leu  
 225 230 235 240  
 Thr Ala Thr Phe Ser Phe Cys Phe Tyr Leu Ile Phe Ala Ile Gly Ile  
 245 250 255  
 Leu Cys Val Leu Cys Gly Leu Gly Leu Gly Ile Cys Glu His Trp Arg  
 260 265 270  
 Ile Tyr Thr Leu Ser Thr Phe Leu Asp Ala Ser Leu Asp Glu His Val  
 275 280 285  
 Gly Pro Lys Trp Lys Lys Leu Pro Thr Gly Gly Pro Ala Leu Gln Gly  
 290 295 300  
 Val Gln Ile Gly Ala Tyr Gly Thr Asn Thr Thr Asn Ser Ser Arg Asp  
 305 310 315 320  
 Lys Asn Asp Ile Ser Ser Asp Lys Thr Ala Gly Ser Ser Gly Phe Gln  
 325 330 335  
 Ser Arg Thr Ser Thr Cys Gln Ser Ser Ala Ser Ser Ala Ser Leu Arg  
 340 345 350  
 Ser Gln Ser Ser Ile Glu Thr Val His Asp Glu Ala Glu Leu Glu Arg  
 355 360 365  
 Thr His Val His Phe Leu Gln Glu Pro Cys Ser Ser Ser Ser Thr

370

375

380

<210> 411  
 <211> 399  
 <212> PRT  
 <213> Homo sapiens

<400> 411

Met	Lys	Met	Arg	Phe	Leu	Gly	Leu	Val	Val	Cys	Leu	Val	Leu	Trp	Pro
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Leu	His	Ser	Glu	Gly	Ser	Gly	Gly	Lys	Leu	Thr	Ala	Val	Asp	Pro	Glu
			20					25					30		
Thr	Asn	Met	Asn	Val	Ser	Glu	Ile	Ile	Ser	Tyr	Trp	Gly	Phe	Pro	Ser
		35					40					45			
Glu	Glu	Tyr	Leu	Val	Glu	Thr	Glu	Asp	Gly	Tyr	Ile	Leu	Cys	Leu	Asn
	50					55					60				
Arg	Ile	Pro	His	Gly	Arg	Lys	Asn	His	Ser	Asp	Lys	Gly	Pro	Lys	Pro
65					70					75					80
Val	Val	Phe	Leu	Gln	His	Gly	Leu	Leu	Ala	Asp	Ser	Ser	Asn	Trp	Val
				85					90					95	
Thr	Asn	Leu	Ala	Asn	Ser	Ser	Leu	Gly	Phe	Ile	Leu	Ala	Asp	Ala	Gly
			100					105					110		
Phe	Asp	Val	Trp	Met	Gly	Asn	Ser	Arg	Gly	Asn	Thr	Trp	Ser	Arg	Lys
	115					120						125			
His	Lys	Thr	Leu	Ser	Val	Ser	Gln	Asp	Glu	Phe	Trp	Ala	Phe	Ser	Tyr
	130					135					140				
Asp	Glu	Met	Ala	Lys	Tyr	Asp	Leu	Pro	Ala	Ser	Ile	Asn	Phe	Ile	Leu
145					150					155					160
Asn	Lys	Thr	Gly	Gln	Glu	Gln	Val	Tyr	Tyr	Val	Gly	His	Ser	Gln	Gly
				165					170					175	
Thr	Thr	Ile	Gly	Phe	Ile	Ala	Phe	Ser	Gln	Ile	Pro	Glu	Leu	Ala	Lys
			180					185					190		
Arg	Ile	Lys	Met	Phe	Phe	Ala	Leu	Gly	Pro	Val	Ala	Ser	Val	Ala	Phe
		195				200						205			
Cys	Thr	Ser	Pro	Met	Ala	Lys	Leu	Gly	Arg	Leu	Pro	Asp	His	Leu	Ile
	210					215					220				
Lys	Asp	Leu	Phe	Gly	Asp	Lys	Glu	Phe	Leu	Pro	Gln	Ser	Ala	Phe	Leu
225					230					235					240
Lys	Trp	Leu	Gly	Thr	His	Val	Cys	Thr	His	Val	Ile	Leu	Lys	Glu	Leu
				245					250					255	
Cys	Gly	Asn	Leu	Cys	Phe	Leu	Leu	Cys	Gly	Phe	Asn	Glu	Arg	Asn	Leu
			260					265					270		
Asn	Met	Ser	Arg	Val	Asp	Val	Tyr	Thr	Thr	His	Ser	Pro	Ala	Gly	Thr
	275						280					285			
Ser	Val	Gln	Asn	Met	Leu	His	Trp	Ser	Gln	Ala	Val	Lys	Phe	Gln	Lys
	290					295					300				
Phe	Gln	Ala	Phe	Asp	Trp	Gly	Ser	Ser	Ala	Lys	Asn	Tyr	Phe	His	Tyr
305					310					315					320
Asn	Gln	Ser	Tyr	Pro	Pro	Thr	Tyr	Asn	Val	Lys	Asp	Met	Leu	Val	Pro
				325					330					335	
Thr	Ala	Val	Trp	Ser	Gly	Gly	His	Asp	Trp	Leu	Ala	Asp	Val	Tyr	Asp
			340					345					350		
Val	Asn	Ile	Leu	Leu	Thr	Gln	Ile	Thr	Asn	Leu	Val	Phe	His	Glu	Ser
		355				360						365			
Ile	Pro	Glu	Trp	Glu	His	Leu	Asp	Phe	Ile	Trp	Gly	Leu	Asp	Ala	Pro
	370					375					380				

Trp Arg Leu Tyr Asn Lys Ile Ile Asn Leu Met Arg Lys Tyr Gln  
 385 390 395

<210> 412  
 <211> 19  
 <212> PRT  
 <213> Homo sapiens

<400> 412  
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 1 5 10 15  
 Thr Leu Ala

<210> 413  
 <211> 451  
 <212> PRT  
 <213> Homo sapiens

<400> 413  
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 1 5 10 15  
 Asn Gly Ala Asp Tyr Arg Gly Thr Gln Ser Trp Thr Ala Leu Gln Gly  
 20 25 30  
 Gly Lys Pro Cys Leu Phe Trp Asn Glu Thr Phe Gln His Pro Tyr Asn  
 35 40 45  
 Thr Leu Lys Tyr Pro Asn Gly Glu Gly Leu Gly Glu His Asn Tyr  
 50 55 60  
 Cys Arg Asn Pro Asp Gly Asp Val Ser Pro Trp Cys Tyr Val Ala Glu  
 65 70 75 80  
 His Glu Asp Gly Val Tyr Trp Lys Tyr Cys Glu Ile Pro Ala Cys Gln  
 85 90 95  
 Met Pro Gly Asn Leu Gly Cys Tyr Lys Asp His Gly Asn Pro Pro Pro  
 100 105 110  
 Leu Thr Gly Thr Ser Lys Thr Ser Asn Lys Leu Thr Ile Gln Thr Cys  
 115 120 125  
 Ile Ser Phe Cys Arg Ser Gln Arg Phe Lys Phe Ala Gly Met Glu Ser  
 130 135 140  
 Gly Tyr Ala Cys Phe Cys Gly Asn Asn Pro Asp Tyr Trp Lys His Gly  
 145 150 155 160  
 Glu Ala Ala Ser Thr Glu Cys Asn Ser Val Cys Phe Gly Asp His Thr  
 165 170 175  
 Gln Pro Cys Gly Gly Asp Gly Arg Ile Ile Leu Phe Asp Thr Leu Val  
 180 185 190  
 Gly Ala Cys Gly Gly Asn Tyr Ser Ala Met Ala Ala Val Val Tyr Ser  
 195 200 205  
 Pro Asp Phe Pro Asp Thr Tyr Ala Thr Gly Arg Val Cys Tyr Trp Thr  
 210 215 220  
 Ile Arg Val Pro Gly Ala Ser Arg Ile His Phe Asn Phe Thr Leu Phe  
 225 230 235 240  
 Asp Ile Arg Asp Ser Ala Asp Met Val Glu Leu Leu Asp Gly Tyr Thr  
 245 250 255  
 His Arg Val Leu Val Arg Leu Ser Gly Arg Ser Arg Pro Pro Leu Ser  
 260 265 270  
 Phe Asn Val Ser Leu Asp Phe Val Ile Leu Tyr Phe Phe Ser Asp Arg



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<400> 415
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aaattcttct tacttttagaa ttagttgtta cattggcagg aaaaaataaa tgcagatgtt 120
ggaccatgtt ggaaaccttg tcaagacagt ggattgtctc acacagaatg gaaatgtggc 180
ttctgattct ggtggcgtat atgttcaga gaaatgtgaa ttcagtacat atgccacta 240
aagctgtgga ccagagaagca ttcataaata ttagtgaaat catccaacat caaggctatc 300
cctgtgagga atatgaagtc gcaactgaag atgggtatat ctttctgtt aacaggattc 360
ctcgaggcct agtgcaacct aagaagacag gttccaggcc tgtggtgtta ctgcagcatg 420
gcctagttag aggtgctagc aactggattt ccaacctgcc caacaatagc ctgggcttca 480
ttctggcaga tgctggtttt gacgtgtgga tggggaacag caggggaaac gcctggtctc 540
gaaaacacaa gacactctcc atagaccaag atgagttctg ggctttcagt tatgatgaga 600
tggctaggtt tgaccttctc gcagtgtata actttatttt gcagaaaacg ggccaggaaa 660
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catttgactg ggggagtgag accaaaaatc tggaaaaatg caatcagcca actcctgtaa 1140
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ctcagaataa ggccaagttt tatagttgca tctcagggaa gaaaatttta taggatgttt 1980
atgagttctc caataaatgc attctgcatt acataaaaaa aaaaaaaaaa aaaagggcgg 2040
ccgc 2044

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<210> 416
<211> 1269
<212> DNA
<213> Homo sapiens

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gtggaccacag aagcattcat gaatattagt gaaatcatcc aacatcaagg ctatccctgt 180
gaggaatatg aagtcgcaac tgaagatggg tatatccttt ctgttaacag gattcctcga 240
ggcctatgtc aacctaaaga gacaggttcc aggcctgtgg tgttactgca gcatggccta 300
gttgagggtg ctagcaactg gatttccaac ctgcccacaa atagcctggg cttcattctg 360
gcagatgctg gttttgacgt gtggatgggg aacagcaggg gaaacgcctg gtctcgaaaa 420
cacaagacac tctccataga ccaagatgag ttctgggctt tcagttatga tgagatggct 480
aggtttgacc ttctgcagt gataaacttt attttgagca aaacgggcca ggaaaagatc 540
tattatgtcg gctattcaca gggcaccacc atgggcttta ttgcattttc caccatgcca 600
gagctggctc agaaaaatcaa aatgtatttt gcttttagcac ccatagccac tgtaagcat 660
gcaaaaagcc ccgggaccaa atttttgttg ctgccagata tgatgatcaa gggattgttt 720
ggcaaaaaag aatttctgta tcagaccaga tttctcagac aacttggtat ttacctttgt 780

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ggccagggtga ttcttgatca gattttagt aatatcatgt tacttctggg tggattcaac 840
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tctgtgcaaa atattctaca ctggagccag gcagtgaatt ctggtgaact ccgggcattt 960
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<210> 417
<211> 423
<212> PRT
<213> Homo sapiens

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<400> 417
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Met Trp Leu Leu Ile Leu Val Ala Tyr Met Phe Gln Arg Asn Val Asn
 20          25          30
Ser Val His Met Pro Thr Lys Ala Val Asp Pro Glu Ala Phe Met Asn
 35          40          45
Ile Ser Glu Ile Ile Gln His Gln Gly Tyr Pro Cys Glu Glu Tyr Glu
 50          55          60
Val Ala Thr Glu Asp Gly Tyr Ile Leu Ser Val Asn Arg Ile Pro Arg
 65          70          75          80
Gly Leu Val Gln Pro Lys Lys Thr Gly Ser Arg Pro Val Val Leu Leu
 85          90          95
Gln His Gly Leu Val Gly Gly Ala Ser Asn Trp Ile Ser Asn Leu Pro
100          105          110
Asn Asn Ser Leu Gly Phe Ile Leu Ala Asp Ala Gly Phe Asp Val Trp
115          120          125
Met Gly Asn Ser Arg Gly Asn Ala Trp Ser Arg Lys His Lys Thr Leu
130          135          140
Ser Ile Asp Gln Asp Glu Phe Trp Ala Phe Ser Tyr Asp Glu Met Ala
145          150          155          160
Arg Phe Asp Leu Pro Ala Val Ile Asn Phe Ile Leu Gln Lys Thr Gly
165          170          175
Gln Glu Lys Ile Tyr Tyr Val Gly Tyr Ser Gln Gly Thr Thr Met Gly
180          185          190
Phe Ile Ala Phe Ser Thr Met Pro Glu Leu Ala Gln Lys Ile Lys Met
195          200          205
Tyr Phe Ala Leu Ala Pro Ile Ala Thr Val Lys His Ala Lys Ser Pro
210          215          220
Gly Thr Lys Phe Leu Leu Leu Pro Asp Met Met Ile Lys Gly Leu Phe
225          230          235          240
Gly Lys Lys Glu Phe Leu Tyr Gln Thr Arg Phe Leu Arg Gln Leu Val
245          250          255
Ile Tyr Leu Cys Gly Gln Val Ile Leu Asp Gln Ile Cys Ser Asn Ile
260          265          270
Met Leu Leu Leu Gly Gly Phe Asn Thr Asn Asn Met Asn Met Ser Arg
275          280          285
Ala Ser Val Tyr Ala Ala His Thr Leu Ala Gly Thr Ser Val Gln Asn
290          295          300
Ile Leu His Trp Ser Gln Ala Val Asn Ser Gly Glu Leu Arg Ala Phe
305          310          315          320
Asp Trp Gly Ser Glu Thr Lys Asn Leu Glu Lys Cys Asn Gln Pro Thr

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Phe	Ala	Leu	Ala	Pro	Ile	Ala	Thr	Val	Lys	His	Ala	Lys	Ser	Pro	Gly
			180					185					190		
Thr	Lys	Phe	Leu	Leu	Leu	Pro	Asp	Met	Met	Ile	Lys	Gly	Leu	Phe	Gly
		195					200					205			
Lys	Lys	Glu	Phe	Leu	Tyr	Gln	Thr	Arg	Phe	Leu	Arg	Gln	Leu	Val	Ile
	210					215					220				
Tyr	Leu	Cys	Gly	Gln	Val	Ile	Leu	Asp	Gln	Ile	Cys	Ser	Asn	Ile	Met
225					230					235				240	
Leu	Leu	Leu	Gly	Gly	Phe	Asn	Thr	Asn	Asn	Met	Asn	Met	Ser	Arg	Ala
			245					250						255	
Ser	Val	Tyr	Ala	Ala	His	Thr	Leu	Ala	Gly	Thr	Ser	Val	Gln	Asn	Ile
		260						265					270		
Leu	His	Trp	Ser	Gln	Ala	Val	Asn	Ser	Gly	Glu	Leu	Arg	Ala	Phe	Asp
	275						280					285			
Trp	Gly	Ser	Glu	Thr	Lys	Asn	Leu	Glu	Lys	Cys	Asn	Gln	Pro	Thr	Pro
	290					295					300				
Val	Arg	Tyr	Arg	Val	Arg	Asp	Met	Thr	Val	Pro	Thr	Ala	Met	Trp	Thr
305					310					315					320
Gly	Gly	Gln	Asp	Trp	Leu	Ser	Asn	Pro	Glu	Asp	Val	Lys	Met	Leu	Leu
			325					330						335	
Ser	Glu	Val	Thr	Asn	Leu	Ile	Tyr	His	Lys	Asn	Ile	Pro	Glu	Trp	Ala
		340					345						350		
His	Val	Asp	Phe	Ile	Trp	Gly	Leu	Asp	Ala	Pro	His	Arg	Met	Tyr	Asn
	355					360						365			
Glu	Ile	Ile	His	Leu	Met	Gln	Gln	Glu	Glu	Thr	Asn	Leu	Ser	Gln	Gly
	370					375					380				
Arg	Cys	Glu	Ala	Val	Leu										
385					390										

<210> 420  
 <211> 221  
 <212> PRT  
 <213> Homo sapiens

<400> 420

Val	His	Met	Pro	Thr	Lys	Ala	Val	Asp	Pro	Glu	Ala	Phe	Met	Asn	Ile
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Ser	Glu	Ile	Ile	Gln	His	Gln	Gly	Tyr	Pro	Cys	Glu	Glu	Tyr	Glu	Val
			20					25					30		
Ala	Thr	Glu	Asp	Gly	Tyr	Ile	Leu	Ser	Val	Asn	Arg	Ile	Pro	Arg	Gly
		35				40						45			
Leu	Val	Gln	Pro	Lys	Lys	Thr	Gly	Ser	Arg	Pro	Val	Val	Leu	Leu	Gln
	50					55					60				
His	Gly	Leu	Val	Gly	Gly	Ala	Ser	Asn	Trp	Ile	Ser	Asn	Leu	Pro	Asn
65				70					75					80	
Asn	Ser	Leu	Gly	Phe	Ile	Leu	Ala	Asp	Ala	Gly	Phe	Asp	Val	Trp	Met
			85					90						95	
Gly	Asn	Ser	Arg	Gly	Asn	Ala	Trp	Ser	Arg	Lys	His	Lys	Thr	Leu	Ser
			100				105						110		
Ile	Asp	Gln	Asp	Glu	Phe	Trp	Ala	Phe	Ser	Tyr	Asp	Glu	Met	Ala	Arg
	115					120						125			
Phe	Asp	Leu	Pro	Ala	Val	Ile	Asn	Phe	Ile	Leu	Gln	Lys	Thr	Gly	Gln
	130					135					140				
Glu	Lys	Ile	Tyr	Tyr	Val	Gly	Tyr	Ser	Gln	Gly	Thr	Thr	Met	Gly	Phe
145					150					155					160
Ile	Ala	Phe	Ser	Thr	Met	Pro	Glu	Leu	Ala	Gln	Lys	Ile	Lys	Met	Tyr

				165					170					175			
Phe	Ala	Leu	Ala	Pro	Ile	Ala	Thr	Val	Lys	His	Ala	Lys	Ser	Pro	Gly		
			180					185					190				
Thr	Lys	Phe	Leu	Leu	Leu	Pro	Asp	Met	Met	Ile	Lys	Gly	Leu	Phe	Gly		
		195					200					205					
Lys	Lys	Glu	Phe	Leu	Tyr	Gln	Thr	Arg	Phe	Leu	Arg	Gln					
	210					215					220						

<210> 421  
 <211> 25  
 <212> PRT  
 <213> Homo sapiens

<400> 421																	
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Asn	Ile	Met	Leu	Leu	Leu	Gly	Gly	Phe									
			20					25									

<210> 422  
 <211> 144  
 <212> PRT  
 <213> Homo sapiens

<400> 422																	
Asn	Thr	Asn	Asn	Met	Asn	Met	Ser	Arg	Ala	Ser	Val	Tyr	Ala	Ala	His		
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Thr	Leu	Ala	Gly	Thr	Ser	Val	Gln	Asn	Ile	Leu	His	Trp	Ser	Gln	Ala		
			20				25						30				
Val	Asn	Ser	Gly	Glu	Leu	Arg	Ala	Phe	Asp	Trp	Gly	Ser	Glu	Thr	Lys		
		35					40					45					
Asn	Leu	Glu	Lys	Cys	Asn	Gln	Pro	Thr	Pro	Val	Arg	Tyr	Arg	Val	Arg		
	50					55					60						
Asp	Met	Thr	Val	Pro	Thr	Ala	Met	Trp	Thr	Gly	Gly	Gln	Asp	Trp	Leu		
65				70						75				80			
Ser	Asn	Pro	Glu	Asp	Val	Lys	Met	Leu	Leu	Ser	Glu	Val	Thr	Asn	Leu		
			85					90						95			
Ile	Tyr	His	Lys	Asn	Ile	Pro	Glu	Trp	Ala	His	Val	Asp	Phe	Ile	Trp		
		100						105					110				
Gly	Leu	Asp	Ala	Pro	His	Arg	Met	Tyr	Asn	Glu	Ile	Ile	His	Leu	Met		
		115					120						125				
Gln	Gln	Glu	Glu	Thr	Asn	Leu	Ser	Gln	Gly	Arg	Cys	Glu	Ala	Val	Leu		
	130					135					140						

<210> 423  
 <211> 2133  
 <212> DNA  
 <213> Homo sapiens

<400> 423																	
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ttcccgatgg	acaccacttt	ggccagcatc	atcatgatct	ttctgactgc	actggccacg	180											
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gtgggccagg	tcagcaccaa	cacatcatac	aaggccttca	gttctgagtg	gatcagcgct	360
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cagcagctga	atgagaccat	caattacaac	gaggagtcca	cctggcgcct	gggtgagaac	480
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<210> 424

<211> 1029

<212> DNA

<213> Homo sapiens

<400> 424

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atcctgcctg	gcattcgggg	aaagacgagg	ctgttctggc	tgcttcgggt	ggtgaccagc	180
ttattcatcg	gggctgcaat	cctggctgtg	aatttcagtt	ctgagtggtc	tgtgggccag	240
gtcagcacca	acacatcata	caaggccttc	agttctgagt	ggatcagcgc	tgatattggg	300
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aatgagacca	tcaattacaa	cgaggagttc	acctggcgcc	tgggtgagaa	ctatgctgag	420
gagtgtgcaa	aggctctgga	gaaggggctg	ccagaccctg	tggtgtacct	agctgagaag	480
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cctgtgctgg	tatatgggtg	ctacatgcta	ttggccacgg	gcatcttcca	gctgttggct	660
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 <211> 343  
 <212> PRT  
 <213> Homo sapiens

<400> 425  
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<210> 426  
 <211> 23  
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<400> 426

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<210> 427

<211> 112

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<213> Homo sapiens

<400> 427

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Val Gly Leu Gly Gly Val Asn Ile Thr Leu Thr Gly Thr Pro Val Gln  
35 40 45  
Gln Leu Asn Glu Thr Ile Asn Tyr Asn Glu Glu Phe Thr Trp Arg Leu  
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Gly Glu Asn Tyr Ala Glu Glu Cys Ala Lys Ala Leu Glu Lys Gly Leu  
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<210> 428

<211> 22

<212> PRT

<213> Homo sapiens

<400> 428

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His Thr His His Gly Pro  
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<210> 429

<211> 19

<212> PRT

<213> Homo sapiens

<400> 429

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<210> 430

<211> 20

<212> PRT

<213> Homo sapiens

<400> 430

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<211> 22

<212> PRT

<213> Homo sapiens

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<211> 17

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<213> Homo sapiens

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<210> 433

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<213> Homo sapiens

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<210> 434

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<213> Homo sapiens

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<210> 435

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 <211> 4928  
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4928

<210> 438

<211> 1410

<212> DNA

<213> Mus sp.

<400> 438

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<210> 439

<211> 470

<212> PRT

<213> Mus sp.

<400> 439

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Leu Gln Gly Gly Lys Pro Cys Leu Phe Trp Asn Glu Thr Phe Gln His
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Pro Tyr Asn Thr Leu Lys Tyr Pro Asn Gly Glu Gly Gly Leu Gly Glu
 65          70          75          80
His Asn Tyr Cys Arg Asn Pro Asp Gly Asp Val Ser Pro Trp Cys Tyr
 85          90          95
Val Ala Glu His Glu Asp Gly Val Tyr Trp Lys Tyr Cys Glu Ile Pro
100          105          110
Ala Cys Gln Met Pro Gly Asn Leu Gly Cys Tyr Lys Asp His Gly Asn
115          120          125
Pro Pro Pro Leu Thr Gly Thr Ser Lys Thr Ser Asn Lys Leu Thr Ile
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<210> 440  
 <211> 760  
 <212> PRT  
 <213> Mus sp.

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Arg	Glu	Arg	Val	Gln	Val	Pro	Leu	Thr	Arg	Val	Gly	Gly	Gly	Ala	Ser
			660					665						670	
Met	Ala	Ala	Gln	Arg	Ser	Tyr	Trp	Pro	His	Phe	Leu	Ile	Val	Thr	Val
		675					680					685			
Leu	Leu	Ala	Ile	Val	Leu	Leu	Gly	Val	Leu	Thr	Leu	Leu	Leu	Ala	Ser
	690					695					700				
Pro	Leu	Gly	Ala	Leu	Arg	Ala	Arg	Gly	Lys	Val	Gln	Gly	Cys	Gly	Met
705					710					715					720
Leu	Pro	Pro	Arg	Glu	Lys	Ala	Pro	Leu	Ser	Arg	Asp	Gln	His	Leu	Gln
				725					730					735	
Pro	Ser	Lys	Asp	His	Arg	Thr	Ser	Ala	Ser	Asp	Val	Asp	Ala	Asp	Asn
			740					745					750		
Asn	His	Leu	Gly	Ala	Glu	Val	Ala								
		755					760								

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 <212> PRT  
 <213> Mus sp.

<400> 441															
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			20					25					30		
Gly	Gly	Gly	Gly	Ala	Ala	Cys	Cys	Ala	Thr	Cys	Thr	Gly	Gly	Thr	Gly
			35				40					45			
Ala	Cys	Cys	Ala	Thr	Cys	Thr	Cys	Ala	Gly	Gly	Cys	Thr	Gly	Ala	Cys
	50					55					60				
Cys	Ala	Thr	Gly	Gly	Cys	Cys	Cys	Thr	Ala	Cys	Cys	Ala	Thr	Cys	Cys
65					70					75					80
Cys	Thr	Gly	Gly	Gly	Cys	Cys	Ala	Gly	Gly	Ala	Cys	Thr	Cys	Ala	Thr
				85					90					95	
Gly	Gly	Ala	Gly	Thr	Cys	Thr	Cys	Cys	Thr	Gly	Cys	Gly	Thr	Gly	Thr
			100					105					110		
Thr	Thr	Thr	Thr	Thr	Thr	Cys	Thr	Thr	Cys	Cys	Ala	Ala	Cys	Thr	Cys
			115				120					125			
Thr	Thr	Cys	Cys	Thr	Gly	Cys	Thr	Gly	Cys	Cys	Ala	Thr	Cys	Ala	Cys

130	135	140
Thr Gly Cys Cys Ala Cys Cys	Thr Gly Cys Thr Thr Cys Thr Gly Gly	Thr Thr Cys Thr Gly Gly
145	150	155
Gly Ala Cys Thr Gly Gly Thr Gly Gly Thr Cys Ala Gly Gly Gly Gly		160
	165	170
Cys Cys Cys Ala Thr Gly Cys Cys Cys Ala Gly Ala Gly Thr Cys Ala		175
	180	185
Ala Ala Thr Ala Cys Cys Ala Thr Gly Cys Thr Gly Gly Ala Gly Ala		190
	195	200
Cys Gly Gly Gly Cys Ala Cys Ala Gly Gly Gly Cys Cys Cys Thr Cys		205
	210	215
Ala Gly Cys Thr Thr Cys Thr Thr Cys Cys Ala Ala Cys Ala Ala Ala		220
225	230	235
Ala Ala Gly Gly Cys Cys Thr Cys Cys Gly Ala Gly Ala Cys Thr Thr		240
	245	250
Thr Gly Ala Cys Ala Cys Gly Cys Thr Gly Cys Thr Cys Cys Thr Gly		255
	260	265
Ala Gly Thr Gly Ala Cys Gly Ala Thr Gly Gly Cys Ala Ala Cys Ala		270
	275	280
Cys Thr Cys Thr Cys Thr Ala Thr Gly Thr Gly Gly Gly Gly Cys		285
290	295	300
Thr Cys Gly Ala Gly Ala Gly Ala Cys Cys Gly Thr Cys Cys Thr Gly		310
305	315	320
Gly Cys Cys Thr Thr Gly Ala Ala Thr Ala Thr Cys Cys Ala Gly Ala		325
	330	335
Ala Cys Cys Cys Ala Gly Gly Ala Ala Thr Cys Cys Cys Ala Ala Gly		340
	345	350
Gly Cys Thr Ala Ala Ala Gly Ala Ala Cys Ala Thr Gly Ala Thr Ala		355
	360	365
Cys Cys Cys Thr Gly Gly Cys Cys Ala Gly Cys Cys Ala Gly Thr Gly		370
375	380	385
Ala Gly Ala Gly Ala Ala Ala Ala Ala Gly Ala Cys Cys Gly Ala		390
	395	400
Ala Thr Gly Thr Gly Cys Cys Thr Thr Thr Ala Ala Gly Ala Ala Gly		405
	410	415
Ala Ala Gly Ala Gly Cys Ala Ala Thr Gly Ala Gly Ala Cys Ala Cys		420
	425	430
Ala Gly Thr Gly Thr Thr Thr Cys Ala Ala Cys Thr Thr Cys Ala Thr		435
	440	445
Thr Cys Gly Ala Gly Thr Cys Cys Thr Gly Gly Thr Cys Thr Cys Thr		450
	455	460
Thr Ala Cys Ala Ala Thr Gly Cys Thr Ala Cys Thr Cys Ala Cys Cys		465
470	475	480
Thr Cys Thr Ala Thr Gly Cys Cys Thr Gly Thr Gly Gly Gly Ala Cys		485
	490	495
Cys Thr Thr Thr Gly Cys Cys Thr Thr Cys Ala Gly Cys Cys Cys Thr		500
	505	510
Gly Cys Cys Thr Gly Thr Ala Cys Cys Thr Thr Cys Ala Thr Thr Gly		515
	520	525
Ala Ala Cys Thr Cys Cys Ala Ala Gly Ala Thr Thr Cys Cys Cys Thr		530
	535	540
Cys Cys Thr Gly Thr Thr Gly Cys Cys Cys Ala Thr Cys Thr Thr Gly		545
	550	555
Ala Thr Ala Gly Ala Cys Ala Ala Gly Gly Thr Cys Ala Thr Gly Gly		560
	565	570
Ala Cys Gly Gly Gly Ala Ala Gly Gly Gly Cys Cys Ala Ala Gly		575
	580	585
	590	

Cys	Cys	Cys	Thr	Thr	Thr	Gly	Ala	Cys	Cys	Cys	Thr	Gly	Thr	Thr	Cys
		595					600					605			
Ala	Cys	Ala	Ala	Gly	Cys	Ala	Cys	Ala	Cys	Ala	Ala	Gly	Cys	Thr	Gly
	610					615					620				
Thr	Cys	Thr	Thr	Gly	Gly	Thr	Cys	Gly	Ala	Thr	Gly	Gly	Gly	Ala	Thr
625					630					635					640
Gly	Cys	Thr	Thr	Thr	Ala	Thr	Thr	Cys	Cys	Gly	Gly	Cys	Ala	Cys	Cys
				645					650						655
Ala	Thr	Gly	Ala	Ala	Cys	Ala	Ala	Cys	Thr	Thr	Cys	Cys	Thr	Gly	Gly
		660						665					670		
Gly	Cys	Ala	Gly	Cys	Gly	Ala	Gly	Cys	Cys	Cys	Ala	Thr	Cys	Cys	Thr
	675						680					685			
Gly	Ala	Thr	Gly	Cys	Gly	Gly	Ala	Cys	Ala	Cys	Thr	Gly	Gly	Gly	Ala
	690					695					700				
Thr	Cys	Cys	Cys	Ala	Thr	Cys	Cys	Thr	Gly	Thr	Thr	Cys	Thr	Cys	Ala
705					710					715					720
Ala	Gly	Ala	Cys	Thr	Gly	Ala	Cys	Ala	Thr	Cys	Thr	Thr	Cys	Thr	Thr
				725					730						735
Ala	Cys	Gly	Cys	Thr	Gly	Gly	Cys	Thr	Gly	Cys	Ala	Cys	Gly	Cys	Gly
		740						745					750		
Gly	Ala	Thr	Gly	Cys	Cys	Thr	Cys	Cys	Thr	Thr	Cys	Gly	Thr	Gly	Gly
	755						760					765			
Cys	Ala	Gly	Cys	Cys	Ala	Thr	Thr	Cys	Cys	Ala	Thr	Cys	Cys	Ala	Cys
	770					775					780				
Cys	Cys	Ala	Gly	Gly	Thr	Cys	Gly	Thr	Cys	Thr	Ala	Thr	Thr	Thr	Cys
785					790					795					800
Thr	Thr	Cys	Thr	Thr	Thr	Gly	Ala	Gly	Gly	Ala	Gly	Ala	Cys	Ala	Gly
				805					810						815
Cys	Cys	Ala	Gly	Cys	Gly	Ala	Gly	Thr	Thr	Thr	Gly	Ala	Cys	Thr	Thr
		820						825					830		
Cys	Thr	Thr	Thr	Gly	Ala	Ala	Gly	Ala	Gly	Cys	Thr	Gly	Thr	Ala	Thr
	835						840					845			
Ala	Thr	Ala	Thr	Cys	Cys	Ala	Gly	Gly	Gly	Thr	Gly	Gly	Cys	Thr	Cys
	850					855					860				
Ala	Ala	Gly	Thr	Cys	Thr	Gly	Cys	Ala	Ala	Gly	Ala	Ala	Cys	Gly	Ala
865					870					875					880
Cys	Gly	Thr	Gly	Gly	Gly	Cys	Gly	Gly	Thr	Gly	Ala	Ala	Ala	Ala	Gly
				885					890						895
Cys	Thr	Gly	Cys	Thr	Gly	Cys	Ala	Gly	Ala	Ala	Gly	Ala	Ala	Gly	Thr
	900							905					910		
Gly	Gly	Ala	Cys	Cys	Ala	Cys	Cys	Thr	Thr	Cys	Cys	Thr	Cys	Ala	Ala
	915						920					925			
Ala	Gly	Cys	Cys	Cys	Ala	Gly	Thr	Thr	Gly	Cys	Thr	Cys	Thr	Gly	Cys
	930					935					940				
Gly	Cys	Thr	Cys	Ala	Gly	Cys	Cys	Ala	Gly	Gly	Gly	Cys	Ala	Gly	Cys
945					950					955					960
Thr	Gly	Cys	Cys	Ala	Thr	Thr	Cys	Ala	Ala	Cys	Ala	Thr	Cys	Ala	Thr
				965					970						975
Cys	Cys	Gly	Cys	Cys	Ala	Cys	Gly	Cys	Gly	Gly	Thr	Cys	Cys	Thr	Gly
				980					985					990	
Cys	Thr	Gly	Cys	Cys	Cys	Gly	Cys	Cys	Gly	Ala	Thr	Thr	Cys	Thr	Cys
	995						1000					1005			
Cys	Cys	Thr	Cys	Thr	Gly	Thr	Thr	Thr	Cys	Cys	Cys	Gly	Cys	Ala	Thr
	1010					1015						1020			
Cys	Thr	Ala	Cys	Gly	Cys	Ala	Gly	Thr	Cys	Thr	Thr	Thr	Ala	Cys	Cys
1025					1030						1035				1040
Thr	Cys	Cys	Cys	Ala	Gly	Thr	Gly	Gly	Cys	Ala	Gly	Gly	Thr	Thr	Gly





Ala	Gly	Thr	Gly	Thr	Thr	Thr	Gly	Cys	Ala	Gly	Gly	Cys	Thr	Thr	Cys
1505					1510					1515					1520
Thr	Cys	Thr	Gly	Gly	Ala	Gly	Gly	Cys	Ala	Thr	Cys	Thr	Gly	Gly	Ala
			1525						1530						1535
Gly	Ala	Gly	Thr	Thr	Cys	Cys	Cys	Ala	Gly	Gly	Gly	Cys	Cys	Ala	Ala
			1540					1545					1550		
Thr	Thr	Gly	Cys	Ala	Gly	Thr	Gly	Thr	Cys	Thr	Ala	Cys	Gly	Ala	Gly
		1555					1560					1565			
Ala	Gly	Cys	Thr	Gly	Thr	Gly	Thr	Gly	Gly	Ala	Cys	Thr	Gly	Thr	Gly
	1570					1575					1580				
Thr	Gly	Cys	Thr	Thr	Gly	Cys	Cys	Ala	Gly	Gly	Gly	Ala	Cys	Cys	Cys
1585					1590					1595					1600
Thr	Cys	Ala	Cys	Thr	Gly	Thr	Gly	Cys	Cys	Thr	Gly	Gly	Gly	Ala	Cys
			1605						1610						1615
Cys	Cys	Thr	Gly	Ala	Ala	Thr	Cys	Ala	Ala	Gly	Ala	Cys	Thr	Cys	Thr
			1620					1625					1630		
Gly	Cys	Ala	Gly	Cys	Cys	Thr	Thr	Cys	Thr	Gly	Thr	Cys	Thr	Gly	Gly
		1635					1640					1645			
Cys	Thr	Cys	Thr	Ala	Cys	Cys	Ala	Ala	Gly	Cys	Cys	Thr	Thr	Gly	Gly
	1650					1655				1660					
Ala	Ala	Gly	Cys	Ala	Gly	Gly	Ala	Cys	Ala	Thr	Gly	Gly	Ala	Ala	Cys
1665					1670					1675					1680
Gly	Cys	Gly	Gly	Cys	Ala	Ala	Cys	Cys	Cys	Gly	Gly	Ala	Gly	Thr	Gly
			1685					1690							1695
Gly	Gly	Thr	Ala	Thr	Gly	Cys	Ala	Cys	Cys	Cys	Gly	Thr	Gly	Gly	Cys
		1700						1705					1710		
Cys	Cys	Cys	Ala	Thr	Gly	Gly	Cys	Cys	Ala	Gly	Gly	Ala	Gly	Cys	Cys
		1715					1720					1725			
Cys	Cys	Cys	Gly	Gly	Cys	Gly	Thr	Cys	Ala	Gly	Ala	Gly	Cys	Cys	Cys
	1730					1735				1740					
Cys	Cys	Cys	Thr	Cys	Ala	Ala	Cys	Thr	Ala	Ala	Thr	Thr	Ala	Ala	Ala
1745					1750					1755					1760
Gly	Ala	Ala	Gly	Thr	Cys	Cys	Thr	Gly	Ala	Cys	Ala	Gly	Thr	Cys	Cys
			1765					1770						1775	
Cys	Cys	Ala	Ala	Cys	Thr	Cys	Cys	Ala	Thr	Cys	Cys	Thr	Gly	Gly	Ala
		1780						1785					1790		
Gly	Cys	Thr	Gly	Cys	Gly	Cys	Thr	Gly	Cys	Cys	Cys	Cys	Cys	Ala	Cys
	1795						1800					1805			
Cys	Thr	Gly	Thr	Cys	Ala	Gly	Cys	Ala	Cys	Thr	Gly	Gly	Cys	Cys	Thr
	1810					1815					1820				
Cys	Thr	Thr	Ala	Cys	Cys	Ala	Cys	Thr	Gly	Gly	Ala	Gly	Thr	Cys	Ala
1825					1830					1835					1840
Thr	Gly	Gly	Cys	Cys	Gly	Ala	Gly	Cys	Cys	Ala	Ala	Ala	Ala	Thr	Cys
			1845					1850						1855	
Thr	Cys	Ala	Gly	Ala	Ala	Gly	Cys	Cys	Thr	Cys	Thr	Gly	Cys	Thr	Ala
		1860						1865					1870		
Cys	Cys	Gly	Thr	Cys	Thr	Ala	Cys	Ala	Ala	Thr	Gly	Gly	Cys	Thr	Cys
	1875						1880					1885			
Cys	Cys	Thr	Cys	Thr	Thr	Gly	Cys	Thr	Gly	Cys	Thr	Gly	Cys	Cys	Gly
	1890					1895					1900				
Cys	Ala	Gly	Gly	Ala	Thr	Gly	Gly	Thr	Gly	Thr	Cys	Gly	Gly	Gly	Gly
1905					1910					1915					1920
Gly	Cys	Cys	Thr	Cys	Thr	Ala	Cys	Cys	Ala	Gly	Thr	Gly	Thr	Gly	Thr
			1925					1930						1935	
Gly	Gly	Cys	Gly	Ala	Cys	Thr	Gly	Ala	Gly	Ala	Ala	Cys	Gly	Gly	Cys
		1940						1945					1950		
Thr	Ala	Cys	Thr	Cys	Ala	Thr	Ala	Cys	Cys	Cys	Thr	Gly	Thr	Gly	Gly



Cys	Ala	Cys	Thr	Cys	Thr	Gly	Ala	Cys	Cys	Ala	Gly	Gly	Gly	Thr	Ala	2420	2425	2430
Gly	Gly	Ala	Gly	Gly	Cys	Thr	Cys	Thr	Cys	Cys	Thr	Gly	Cys	Thr	Ala	2435	2440	2445
Ala	Cys	Gly	Thr	Gly	Thr	Gly	Thr	Cys	Ala	Cys	Cys	Thr	Ala	Cys	Ala	2450	2455	2460
Gly	Cys	Ala	Cys	Cys	Cys	Ala	Gly	Thr	Ala	Gly	Gly	Thr	Cys	Cys	Thr	2465	2470	2475
Cys	Cys	Cys	Cys	Thr	Gly	Thr	Gly	Gly	Gly	Ala	Cys	Thr	Cys	Thr	Cys	2485	2490	2495
Thr	Thr	Cys	Thr	Gly	Cys	Ala	Ala	Gly	Cys	Ala	Cys	Ala	Thr	Thr	Gly	2500	2505	2510
Gly	Gly	Cys	Thr	Gly	Thr	Cys	Thr	Cys	Cys	Ala	Thr	Ala	Cys	Cys	Thr	2515	2520	2525
Gly	Thr	Ala	Cys	Thr	Thr	Gly	Thr	Gly	Cys	Thr	Gly	Thr	Gly	Ala	Cys	2530	2535	2540
Ala	Gly	Gly	Ala	Ala	Gly	Ala	Gly	Cys	Cys	Ala	Gly	Ala	Cys	Ala	Gly	2545	2550	2555
Gly	Thr	Thr	Thr	Cys	Thr	Thr	Thr	Gly	Ala	Thr	Thr	Thr	Thr	Gly	Ala	2565	2570	2575
Thr	Thr	Gly	Ala	Cys	Cys	Cys	Ala	Ala	Gly	Ala	Gly	Cys	Cys	Cys	Thr	2580	2585	2590
Gly	Cys	Cys	Thr	Gly	Thr	Ala	Ala	Cys	Ala	Ala	Ala	Cys	Gly	Thr	Gly	2595	2600	2605
Cys	Thr	Cys	Cys	Ala	Gly	Gly	Ala	Gly	Ala	Cys	Cys	Ala	Thr	Gly	Ala	2610	2615	2620
Ala	Ala	Gly	Gly	Thr	Gly	Thr	Gly	Gly	Cys	Thr	Gly	Thr	Cys	Thr	Gly	2625	2630	2635
Gly	Gly	Ala	Thr	Thr	Cys	Thr	Gly	Thr	Gly	Gly	Thr	Gly	Ala	Cys	Ala	2645	2650	2655
Ala	Ala	Cys	Cys	Thr	Ala	Ala	Gly	Cys	Ala	Thr	Cys	Cys	Gly	Ala	Gly	2660	2665	2670
Cys	Ala	Ala	Gly	Cys	Thr	Gly	Gly	Gly	Gly	Cys	Thr	Ala	Thr	Thr	Cys	2675	2680	2685
Cys	Thr	Gly	Cys	Ala	Ala	Ala	Cys	Thr	Cys	Cys	Ala	Thr	Cys	Cys	Thr	2690	2695	2700
Gly	Ala	Ala	Cys	Gly	Cys	Thr	Gly	Thr	Cys	Ala	Cys	Thr	Cys	Thr	Ala	2705	2710	2715
Gly	Ala	Ala	Gly	Cys	Ala	Gly	Cys	Thr	Gly	Cys	Thr	Gly	Cys	Thr	Thr	2725	2730	2735
Thr	Gly	Ala	Ala	Cys	Ala	Cys	Cys	Ala	Gly	Cys	Cys	Cys	Ala	Cys	Cys	2740	2745	2750
Cys	Thr	Cys	Cys	Thr	Thr	Cys	Cys	Cys	Ala	Ala	Gly	Ala	Gly	Thr	Cys	2755	2760	2765
Thr	Cys	Thr	Ala	Thr	Gly	Gly	Ala	Gly	Thr	Thr	Gly	Gly	Cys	Cys	Cys	2770	2775	2780
Cys	Thr	Thr	Gly	Thr	Gly	Thr	Thr	Thr	Cys	Cys	Thr	Thr	Thr	Ala	Cys	2785	2790	2795
Cys	Ala	Gly	Thr	Cys	Gly	Gly	Cys	Cys	Ala	Thr	Ala	Cys	Thr	Gly		2805	2810	2815
Thr	Thr	Thr	Gly	Gly	Gly	Ala	Ala	Gly	Thr	Cys	Ala	Thr	Cys	Thr	Cys	2820	2825	2830
Thr	Gly	Ala	Ala	Gly	Thr	Cys	Thr	Ala	Ala	Cys	Cys	Ala	Cys	Cys	Thr	2835	2840	2845
Thr	Cys	Cys	Thr	Thr	Cys	Thr	Thr	Gly	Gly	Thr	Thr	Cys	Ala	Gly	Thr	2850	2855	2860
Thr	Thr	Gly	Gly	Ala	Cys	Ala	Gly	Ala	Thr	Thr	Gly	Thr	Thr	Ala	Thr			

2865		2870		2875		2880									
Thr	Ala	Thr	Thr	Gly	Thr	Cys	Thr	Cys	Thr	Gly	Cys	Cys	Cys	Thr	Gly
		2885		2890		2895									
Gly	Cys	Thr	Ala	Gly	Ala	Ala	Thr	Gly	Gly	Gly	Gly	Gly	Cys	Ala	Thr
		2900		2905		2910									
Ala	Ala	Thr	Cys	Thr	Gly	Ala	Gly	Cys	Cys	Thr	Thr	Gly	Thr	Thr	Cys
		2915		2920		2925									
Cys	Cys	Thr	Thr	Gly	Thr	Cys	Cys	Ala	Gly	Thr	Gly	Thr	Gly	Gly	Cys
		2930		2935		2940									
Thr	Gly	Ala	Cys	Cys	Cys	Thr	Thr	Gly	Ala	Cys	Cys	Thr	Cys	Thr	Thr
2945				2950		2955									2960
Cys	Cys	Thr	Thr	Cys	Cys	Thr	Cys	Cys	Thr	Cys	Cys	Cys	Thr	Thr	Thr
				2965		2970									2975
Gly	Thr	Thr	Thr	Thr	Gly	Gly	Gly	Ala	Thr	Thr	Cys	Ala	Gly	Ala	Ala
				2980		2985									2990
Ala	Ala	Cys	Thr	Gly	Cys	Thr	Thr	Gly	Thr	Cys	Ala	Cys	Ala	Gly	Ala
		2995				3000							3005		
Cys	Ala	Ala	Thr	Thr	Thr	Ala	Thr	Thr	Thr	Thr	Thr	Thr	Ala	Thr	Thr
		3010				3015						3020			
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3025				3030						3035					3040
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			20					25					30		
Met	Asn	Ile	Ser	Gln	Met	Ile	Thr	Tyr	Trp	Gly	Tyr	Pro	Asn	Glu	Glu
		35					40					45			
Tyr	Glu	Val	Val	Thr	Glu	Asp	Gly	Tyr	Ile	Leu	Glu	Val	Asn	Arg	Ile
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65					70					75					80
Phe	Leu	Gln	His	Gly	Leu	Leu	Ala	Ser	Ala	Thr	Asn	Trp	Ile	Ser	Asn
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Leu	Pro	Asn	Asn	Ser	Leu	Ala	Phe	Ile	Leu	Ala	Asp	Ala	Gly	Tyr	Asp
		100						105					110		
Val	Trp	Leu	Gly	Asn	Ser	Arg	Gly	Asn	Thr	Trp	Ala	Arg	Arg	Asn	Leu
	115						120					125			
Tyr	Tyr	Ser	Pro	Asp	Ser	Val	Glu	Phe	Trp	Ala	Phe	Ser	Phe	Asp	Glu
	130					135					140				
Met	Ala	Lys	Tyr	Asp	Leu	Pro	Ala	Thr	Ile	Asp	Phe	Ile	Val	Lys	Lys
145					150					155					160
Thr	Gly	Gln	Lys	Gln	Leu	His	Tyr	Val	Gly	His	Ser	Gln	Gly	Thr	Thr
				165					170					175	
Ile	Gly	Phe	Ile	Ala	Phe	Ser	Thr	Asn	Pro	Ser	Leu	Ala	Lys	Arg	Ile
			180					185					190		
Lys	Thr	Phe	Tyr	Ala	Leu	Ala	Pro	Val	Ala	Thr	Val	Lys	Tyr	Thr	Lys
		195					200					205			
Ser	Leu	Ile	Asn	Lys	Leu	Arg	Phe	Val	Pro	Gln	Ser	Leu	Phe	Lys	Phe
	210					215					220				
Ile	Phe	Gly	Asp	Lys	Ile	Phe	Tyr	Pro	His	Asn	Phe	Phe	Asp	Gln	Phe
225					230					235					240
Leu	Ala	Thr	Glu	Val	Cys	Ser	Arg	Glu	Met	Leu	Asn	Leu	Leu	Cys	Ser
			245						250					255	
Asn	Ala	Leu	Phe	Ile	Ile	Cys	Gly	Phe	Asp	Ser	Lys	Asn	Phe	Asn	Thr
			260					265					270		
Ser	Arg	Leu	Asp	Val	Tyr	Leu	Ser	His	Asn	Pro	Ala	Gly	Thr	Ser	Val
		275					280					285			
Gln	Asn	Met	Phe	His	Trp	Thr	Gln	Ala	Val	Lys	Ser	Gly	Lys	Phe	Gln
	290					295						300			
Ala	Tyr	Asp	Trp	Gly	Ser	Pro	Val	Gln	Asn	Arg	Met	His	Tyr	Asp	Gln
305					310					315					320
Ser	Gln	Pro	Pro	Tyr	Asn	Val	Thr	Ala	Met	Asn	Val	Pro	Ile	Ala	
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Val	Trp	Asn	Gly	Gly	Lys	Asp	Leu	Leu	Ala	Asp	Pro	Gln	Asp	Val	Gly
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Leu	Leu	Leu	Pro	Lys	Leu	Pro	Asn	Leu	Ile	Tyr	His	Lys	Glu	Ile	Pro
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Phe	Tyr	Asn	His	Leu	Asp	Phe	Ile	Trp	Ala	Met	Asp	Ala	Pro	Gln	Glu
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 <213> Mus sp.

<400> 446  
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Thr	Gly	Gly	Gln	Gly	Pro	Met	Pro	Arg	Val	Lys	Tyr	His	Ala	Gly	Asp
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Gly	His	Arg	Ala	Leu	Ser	Phe	Phe	Gln	Gln	Lys	Gly	Leu	Arg	Asp	Phe
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Asp	Thr	Leu	Leu	Leu	Ser	Asp	Asp	Gly	Asn	Thr	Leu	Tyr	Val	Gly	Ala
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Arg	Glu	Thr	Val	Leu	Ala	Leu	Asn	Ile	Gln	Asn	Pro	Gly	Ile	Pro	Arg
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Leu	Lys	Asn	Met	Ile	Pro	Trp	Pro	Ala	Ser	Glu	Arg	Lys	Lys	Thr	Glu
			100					105					110		
Cys	Ala	Phe	Lys	Lys	Lys	Ser	Asn	Glu	Thr	Gln	Cys	Phe	Asn	Phe	Ile
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Arg	Val	Leu	Val	Ser	Tyr	Asn	Ala	Thr	His	Leu	Tyr	Ala	Cys	Gly	Thr
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Phe	Ala	Phe	Ser	Pro	Ala	Cys	Thr	Phe	Ile	Glu	Leu	Gln	Asp	Ser	Leu
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Leu	Leu	Pro	Ile	Leu	Ile	Asp	Lys	Val	Met	Asp	Gly	Lys	Gly	Gln	Ser
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Pro	Leu	Thr	Leu	Phe	Thr	Ser	Thr	Gln	Ala	Val	Leu	Val	Asp	Gly	Met
			180					185					190		
Leu	Tyr	Ser	Gly	Thr	Met	Asn	Asn	Phe	Leu	Gly	Ser	Glu	Pro	Ile	Leu
		195				200						205			
Met	Arg	Thr	Leu	Gly	Ser	His	Pro	Val	Leu	Lys	Thr	Asp	Ile	Phe	Leu
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Arg	Trp	Leu	His	Ala	Asp	Ala	Ser	Phe	Val	Ala	Ala	Ile	Pro	Ser	Thr
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Val	Gly	Gly	Glu	Lys	Leu	Leu	Gln	Lys	Lys	Trp	Thr	Thr	Phe	Leu	Lys
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Ala	Gln	Leu	Leu	Cys	Ala	Gln	Pro	Gly	Gln	Leu	Pro	Phe	Asn	Ile	Ile
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Arg	His	Ala	Val	Leu	Leu	Pro	Ala	Asp	Ser	Pro	Ser	Val	Ser	Arg	Ile
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Tyr	Ala	Val	Phe	Thr	Ser	Gln	Trp	Gln	Val	Gly	Gly	Thr	Arg	Ser	Ser
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Ala	Val	Cys	Ala	Phe	Ser	Leu	Thr	Asp	Ile	Glu	Arg	Val	Phe	Lys	Gly
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Lys	Tyr	Lys	Glu	Leu	Asn	Lys	Glu	Thr	Ser	Arg	Trp	Thr	Thr	Tyr	Arg
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Arg	Leu	Ala	Val	Glu	Ser	Ala	Arg	Gly	Leu	Asp	Gly	Ser	Ser	His	Val
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Asp	Ser	Glu	Pro	Val	Arg	Asn	Leu	Gln	Leu	Ala	Pro	Ala	Gln	Gly	Ala
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Val	Phe	Ala	Gly	Phe	Ser	Gly	Gly	Ile	Trp	Arg	Val	Pro	Arg	Ala	Asn
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Cys	Ser	Val	Tyr	Glu	Ser	Cys	Val	Asp	Cys	Val	Leu	Ala	Arg	Asp	Pro
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His	Cys	Ala	Trp	Asp	Pro	Glu	Ser	Arg	Leu	Cys	Ser	Leu	Leu	Ser	Gly
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Val	Cys	Thr	Arg	Gly	Pro	Met	Ala	Arg	Ser	Pro	Arg	Arg	Gln	Ser	Pro
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Gly	Arg	Ala	Lys	Ile	Ser	Glu	Ala	Ser	Ala	Thr	Val	Tyr	Asn	Gly	Ser
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 tctatgcctg tgggaccttt gccttcagcc ctgcctgtac cttcattgaa ctccaagatt 540  
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<210> 448

<211> 1436

<212> PRT

<213> Bovine

<400> 448

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Gly Val His Arg Cys Glu Gly Arg Val Glu Val Lys His Gln Gly Glu
      35              40              45
Trp Gly Thr Val Asp Gly Tyr Arg Trp Thr Leu Lys Asp Ala Ser Val
      50              55              60
Val Cys Arg Gln Leu Gly Cys Gly Ala Ala Ile Gly Phe Pro Gly Gly
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Ala	Tyr	Phe	Gly	Pro	Gly	Leu	Gly	Pro	Ile	Trp	Leu	Leu	Tyr	Thr	Ser	85	90	95
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Lys	Asp	Tyr	Arg	Asn	Asp	Gly	Tyr	Asn	His	Gly	Arg	Asp	Ala	Gly	Val	115	120	125
Val	Cys	Ser	Gly	Phe	Val	Arg	Leu	Ala	Gly	Gly	Asp	Gly	Pro	Cys	Ser	130	135	140
Gly	Arg	Val	Glu	Val	His	Ser	Gly	Glu	Ala	Trp	Ile	Pro	Val	Ser	Asp	145	150	155
Gly	Asn	Phe	Thr	Leu	Ala	Thr	Ala	Gln	Ile	Ile	Cys	Ala	Glu	Leu	Gly	165	170	175
Cys	Gly	Lys	Ala	Val	Ser	Val	Leu	Gly	His	Glu	Leu	Phe	Arg	Glu	Ser	180	185	190
Ser	Ala	Gln	Val	Trp	Ala	Glu	Glu	Phe	Arg	Cys	Glu	Gly	Glu	Glu	Pro	195	200	205
Glu	Leu	Trp	Val	Cys	Pro	Arg	Val	Pro	Cys	Pro	Gly	Gly	Thr	Cys	His	210	215	220
His	Ser	Gly	Ser	Ala	Gln	Val	Val	Cys	Ser	Ala	Tyr	Ser	Glu	Val	Arg	225	230	235
Leu	Met	Thr	Asn	Gly	Ser	Ser	Gln	Cys	Glu	Gly	Gln	Val	Glu	Met	Asn	245	250	255
Ile	Ser	Gly	Gln	Trp	Arg	Ala	Leu	Cys	Ala	Ser	His	Trp	Ser	Leu	Ala	260	265	270
Asn	Ala	Asn	Val	Ile	Cys	Arg	Gln	Leu	Gly	Cys	Gly	Val	Ala	Ile	Ser	275	280	285
Thr	Pro	Gly	Gly	Pro	His	Leu	Val	Glu	Glu	Gly	Asp	Gln	Ile	Leu	Thr	290	295	300
Ala	Arg	Phe	His	Cys	Ser	Gly	Ala	Glu	Ser	Phe	Leu	Trp	Ser	Cys	Pro	305	310	315
Val	Thr	Ala	Leu	Gly	Gly	Pro	Asp	Cys	Ser	His	Gly	Asn	Thr	Ala	Ser	325	330	335
Val	Ile	Cys	Ser	Gly	Asn	Gln	Ile	Gln	Val	Leu	Pro	Gln	Cys	Asn	Asp	340	345	350
Ser	Val	Ser	Gln	Pro	Thr	Gly	Ser	Ala	Ala	Ser	Glu	Asp	Ser	Ala	Pro	355	360	365
Tyr	Cys	Ser	Asp	Ser	Arg	Gln	Leu	Arg	Leu	Val	Asp	Gly	Gly	Gly	Pro	370	375	380
Cys	Ala	Gly	Arg	Val	Glu	Ile	Leu	Asp	Gln	Gly	Ser	Trp	Gly	Thr	Ile	385	390	395
Cys	Asp	Asp	Gly	Trp	Asp	Leu	Asp	Asp	Ala	Arg	Val	Val	Cys	Arg	Gln	405	410	415
Leu	Gly	Cys	Gly	Glu	Ala	Leu	Asn	Ala	Thr	Gly	Ser	Ala	His	Phe	Gly	420	425	430
Ala	Gly	Ser	Gly	Pro	Ile	Trp	Leu	Asp	Asn	Leu	Asn	Cys	Thr	Gly	Lys	435	440	445
Glu	Ser	His	Val	Trp	Arg	Cys	Pro	Ser	Arg	Gly	Trp	Gly	Gln	His	Asn	450	455	460
Cys	Arg	His	Lys	Gln	Asp	Ala	Gly	Val	Ile	Cys	Ser	Glu	Phe	Leu	Ala	465	470	475
Leu	Arg	Met	Val	Ser	Glu	Asp	Gln	Gln	Cys	Ala	Gly	Trp	Leu	Glu	Val	485	490	495
Phe	Tyr	Asn	Gly	Thr	Trp	Gly	Ser	Val	Cys	Arg	Asn	Pro	Met	Glu	Asp	500	505	510
Ile	Thr	Val	Ser	Thr	Ile	Cys	Arg	Gln	Leu	Gly	Cys	Gly	Asp	Ser	Gly	515	520	525
Thr	Leu	Asn	Ser	Ser	Val	Ala	Leu	Arg	Glu	Gly	Phe	Arg	Pro	Gln	Trp			

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Val Asp Arg Ile Gln Cys	Arg Lys Thr Asp Thr	Ser Leu Trp Gln Cys
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Pro Ser Asp Pro Trp Asn Tyr Asn Ser Cys	Ser Pro Lys Glu Glu Ala	560
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Tyr Ile Trp Cys Ala Asp Ser Arg Gln Ile Arg Leu Val Asp Gly Gly	580	585
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Gly Arg Cys Ser Gly Arg Val Glu Ile Leu Asp Gln Gly Ser Trp Gly	600	605
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Thr Ile Cys Asp Asp Arg Trp Asp Leu Asp Asp Ala Arg Val Val Cys	620	625
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Phe Gly Thr Gly Ser Gly Pro Ile Trp Leu Asp Glu Val Asn Cys Arg	650	655
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Gly Glu Glu Ser Gln Val Trp Arg Cys Pro Ser Trp Gly Trp Arg Gln	660	665
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His Asn Cys Asn His Gln Glu Asp Ala Gly Val Ile Cys Ser Gly Phe	675	680
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His Ser Gly Glu Ala Trp Thr Pro Val Ser Asp Gly Asn Phe Thr Leu	705	710
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Pro Thr Ala Gln Val Ile Cys Ala Glu Leu Gly Cys Gly Lys Ala Val	720	725
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Ser Val Leu Gly His Met Pro Phe Arg Glu Ser Asp Gly Gln Val Trp	730	735
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Ala Glu Glu Phe Arg Cys Asp Gly Gly Glu Pro Glu Leu Trp Ser Cys	745	750
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Pro Arg Val Pro Cys Pro Gly Gly Thr Cys Leu His Ser Gly Ala Ala	760	765
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Gln Val Val Cys Ser Val Tyr Thr Glu Val Gln Leu Met Lys Asn Gly	775	780
775	780	785
Thr Ser Gln Cys Glu Gly Gln Val Glu Met Lys Ile Ser Gly Arg Trp	790	795
790	795	800
Arg Ala Leu Cys Ala Ser His Trp Ser Leu Ala Asn Ala Asn Val Val	805	810
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Cys Arg Gln Leu Gly Cys Gly Val Ala Ile Ser Thr Pro Arg Gly Pro	820	825
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His Leu Val Glu Gly Gly Asp Gln Ile Ser Thr Ala Gln Phe His Cys	835	840
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Ser Gly Ala Glu Ser Phe Leu Trp Ser Cys Pro Val Thr Ala Leu Gly	850	855
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Gly Pro Asp Cys Ser His Gly Asn Thr Ala Ser Val Ile Cys Ser Gly	865	870
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Asn His Thr Gln Val Leu Pro Gln Cys Asn Asp Phe Leu Ser Gln Pro	885	890
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Ala Gly Ser Ala Ala Ser Glu Glu Ser Ser Pro Tyr Cys Ser Asp Ser	900	905
900	905	910
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Glu Ile Leu Asp Gln Gly Ser Trp Gly Thr Ile Cys Asp Asp Asp Trp	930	935
930	935	940
Asp Leu Asp Asp Ala Arg Val Val Cys Arg Gln Leu Gly Cys Gly Glu	945	950
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Ala Leu Asn Ala Thr Gly Ser Ala His Phe Gly Ala Gly Ser Gly Pro	965	970
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 <212> DNA  
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<400> 449

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<210> 450

<211> 12

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<213> Artificial Sequence

<220>

<223> Domain consensus sequence

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<222> (1)...(1)

<223> Xaa at position 1 can be L, I or V

<221> VARIANT

<222> (2)...(2)

<223> Xaa at position 2 can be any amino acid

<221> VARIANT

<222> (3)...(3)

<223> Xaa at position 3 can be L, I or V

<221> VARIANT

<222> (4)...(5)

<223> Xaa at positions 4 and 5 can be any amino acid.  
One or both of residues 4 and 5 can be present.

<221> VARIANT

<222> (7)...(7)

<223> Xaa at position 7 can be any amino acid

<221> VARIANT

<222> (10)...(10)

<223> Xaa at position 10 can be N or H

<221> VARIANT

<222> (11)...(11)  
 <223> Xaa at position 11 can be any amino acid  
  
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 1 5 10  
  
 <210> 451  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Domain consensus sequence  
  
 <221> VARIANT  
 <222> (1)...(1)  
 <223> Xaa at position 1 can be L, I, A or T  
  
 <221> VARIANT  
 <222> (2)...(4)  
 <223> Xaa at positions 2, 3 and 4 can be any amino acid  
  
 <221> VARIANT  
 <222> (6)...(7)  
 <223> Xaa at positions 6 and 7 can be any amino acid.  
 One or both of of residues 6 and 7 can be present.  
  
 <221> VARIANT  
 <222> (8)...(8)  
 <223> Xaa at position 8 can be P or E  
  
 <221> VARIANT  
 <222> (9)...(10)  
 <223> Xaa at positions 9 and 10 can be any amino acid  
  
 <221> VARIANT  
 <222> (11)...(11)  
 <223> Xaa at position 11 can be L, I, V, M, F or Y  
  
 <221> VARIANT  
 <222> (12)...(12)  
 <223> Xaa at position 12 can be D, E, N, Q or S  
  
 <221> VARIANT  
 <222> (13)...(13)  
 <223> Xaa at position 13 can be S, T or A  
  
 <221> VARIANT  
 <222> (14)...(14)  
 <223> Xaa at position 14 can be A or V  
  
 <221> VARIANT  
 <222> (15)...(15)  
 <223> Xaa at position 15 can be L, I, V, M, F or Y

<400> 451  
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<210> 452  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
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<221> VARIANT  
<222> (1)...(1)  
<223> Xaa at position 1 can be G, S, T, A, L, I, V, or N

<221> VARIANT  
<222> (2)...(3)  
<223> Xaa at positions 2 and 3 can be any amino acid

<221> VARIANT  
<222> (6)...(6)  
<223> Xaa at position 6 can be L, I, V, M, F, Y, or W

<221> VARIANT  
<222> (7)...(7)  
<223> Xaa at position 7 can be D, E, G, H, R, K, or P

<221> VARIANT  
<222> (9)...(9)  
<223> Xaa at position 9 can be any amino acid

<221> VARIANT  
<222> (10)...(10)  
<223> Xaa at position 10 can be L, I, V, M, F, Y, W, G,  
S, P, or Q

<400> 452  
Xaa Xaa Xaa His Glu Xaa Xaa His Xaa Xaa  
1 5 10

<210> 453  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Domain consensus sequence

<221> VARIANT  
<222> (4)...(4)  
<223> Xaa at position 4 can be G or N

<221> VARIANT



<222> (5)...(5)  
 <223> Xaa at position 5 can be any amino acid  
  
 <221> VARIANT  
 <222> (7)...(7)  
 <223> Xaa at position 7 can be D or R  
  
 <221> VARIANT  
 <222> (8)...(8)  
 <223> Xaa at position 8 can be L, I, V, S, A, P, K, or Q  
  
 <221> VARIANT  
 <222> (1)...(8)  
 <223> Xaa = Any Amino Acid  
  
 <400> 453  
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 1 5  
  
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 <211> 38  
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 <220>  
 <223> Domain consensus sequence  
  
 <221> VARIANT  
 <222> (1)...(12)  
 <223> Xaa at positions, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10,  
 11 and 12 can be any amino acid  
  
 <221> VARIANT  
 <222> (14)...(16)  
 <223> Xaa at positions 14, 15 and 16 can be any amino  
 acid  
  
 <221> VARIANT  
 <222> (18)...(18)  
 <223> Xaa at position 18 can be any amino acid  
  
 <221> VARIANT  
 <222> (20)...(25)  
 <223> Xaa at positions 20, 21, 22, 23, 24 and 25 can be  
 any amino acid  
  
 <221> VARIANT  
 <222> (26)...(26)  
 <223> Xaa at position 26 can be D, E or N  
  
 <221> VARIANT  
 <222> (27)...(27)  
 <223> Xaa at position 27 can be any amino acid  
  
 <221> VARIANT  
 <222> (28)...(28)

<223> Xaa at position 28 can be L, I, V, M, F, or Y

<221> VARIANT

<222> (29)...(37)

<223> Xaa at positions 29, 30, 31, 32, 33, 34, 35, 36  
and 37 can be any amino acid

<221> VARIANT

<222> (38)...(38)

<223> Xaa at position 38 can be F, Y or W

<400> 454

Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Glu	Xaa	Xaa	Xaa
1			5				10						15	
Glu	Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
			20				25					30		
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa									
			35											

<210> 455

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Domain consensus sequence

<221> VARIANT

<222> (1)...(1)

<223> Xaa at position 1 can be F or Y

<221> VARIANT

<222> (6)...(6)

<223> Xaa at position 6 can be D, N or R

<221> VARIANT

<222> (1)...(6)

<223> Xaa = Any Amino Acid

<400> 455

Xaa	Cys	Arg	Asn	Pro	Xaa
1			5		

<210> 456

<211> 38

<212> PRT

<213> Artificial Sequence

<220>

<223> Domain consensus sequence

<221> VARIANT

<222> (2)...(6)

<223> Xaa at positions 2, 3, 4, 5 and 6 can be any amino  
acid

<221> VARIANT  
 <222> (8)...(9)  
 <223> Xaa at positions 8 and 9 can be any amino acid

<221> VARIANT  
 <222> (11)...(16)  
 <223> Xaa at positions 11, 12, 13, 14, 15 and 16 can be any amino acid

<221> VARIANT  
 <222> (19)...(20)  
 <223> Xaa at positions 19 and 20 can be any amino acid

<221> VARIANT  
 <222> (22)...(24)  
 <223> Xaa at positions 22, 23 and 24 can be any amino acid

<221> VARIANT  
 <222> (25)...(25)  
 <223> Xaa at position 25 can be F, Y or W

<221> VARIANT  
 <222> (26)...(33)  
 <223> Xaa at positions 26, 27, 28, 29, 30, 31, 32 and 33 can be any amino acid

<221> VARIANT  
 <222> (35)...(37)  
 <223> Xaa at positions 35, 36 and 37 can be any amino acid

<400> 456  
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 Xaa Cys Xaa Xaa Xaa Gly  
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<210> 457  
 <211> 26  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Domain consensus sequence

<221> VARIANT  
 <222> (1)...(3)  
 <223> Xaa at positions 1, 2 and 3 can be any amino acid

<221> VARIANT  
 <222> (5)...(5)

<223> Xaa at position 5 can be any amino acid

<221> VARIANT  
 <222> (6)...(6)  
 <223> Xaa at position 6, when present, can be any amino acid

<221> VARIANT  
 <222> (7)...(7)  
 <223> Xaa at position 7 can be E or Q

<221> VARIANT  
 <222> (8)...(11)  
 <223> Xaa at positions 8, 9, 10 and 11 can be any amino acid

<221> VARIANT  
 <222> (12)...(12)  
 <223> Xaa at position 12 can be L, I, V or M

<221> VARIANT  
 <222> (13)...(13)  
 <223> Xaa at position 13, when present, can be any amino acid

<221> VARIANT  
 <222> (14)...(14)  
 <223> Xaa at position 14 can be E, Q or K

<221> VARIANT  
 <222> (15)...(25)  
 <223> Xaa at positions 15, 16, 17, 18, 19, 20, 21, 22, 23, 24 and 25 can be any amino acid

<400> 457  
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 1 5 10 15  
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<210> 458  
 <211> 22  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Leucine Zipper Region of TANGO 366

<400> 458  
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 1 5 10 15  
 Leu His Leu Pro Ala Leu  
 20

<210> 459  
<211> 22  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Leucine Zipper Region of INTERCEPT 217

<400> 459  
Leu Ser Cys Thr Gly Leu Gly Leu Gln Asp Val Pro Ala Glu Leu Pro  
1 5 10 15  
Ala Ala Thr Ala Asp Leu  
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<210> 460  
<211> 22  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Leucine Zipper Region of TANGO 331

<400> 460  
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1 5 10 15  
Ser Glu Tyr Pro Asp Leu  
20